

MODERN

ml

LITHOGRAPHY

APRIL • 1944 • VOL. 12 • NO. 4



**Medium Chrome Yellow 138P**

## Senelith Inks

were the first lithographic inks  
made from dyestuffs  
treated with sodium tungstate  
for better sunfastness  
and are still leading  
with their outstanding resistance properties

**The Senefelder Company, Inc.**

*"Everything for Lithography"*

**32-34 Greene Street**

**New York, N. Y.**

Hammermill urges your customers to form the

# "Put it in writing" habit...

which leads to intelligent use  
of printed forms—and  
business for you

**How to clear up office muddles**

THIS OFFICE HAS BEEN IN A MESS SINCE YOU JOINED THE WAVES

**3 STEPS**  
that get things done

NEW IDEA-BOOK SHOWS HOW TO MAKE OFFICE WORK RUN MORE SMOOTHLY. SEND FOR IT!

MIX-UPS, ERRORS, DELAYS may not be entirely the fault of your green help. Maybe you should examine and test your office methods . . . revise them, streamline them . . . so that new people receive the direction, guidance and information they need.

This Hammermill idea-book, "3 Steps that Get Things Done," is full of tested suggestions on how to plan and supervise office procedure, follow through, get work done right and fast—by "putting it in writing." Send for this free book today!

LOOK FOR THE WATERMARK

**"KNOW HOW"**  
Backed by 45 years' experience, Hammermill papermakers have the "know how" to produce economically the paper which meets the test of business use.

**SEND FOR THIS FREE BOOK**

**HAMMERMILL BOND**  
BUY BONDS EVERY PAYDAY

Hammermill Paper Company, Erie, Pa.  
Please send me—free—my copy of the Hammermill idea-book, "3 Steps that Get Things Done."

Name \_\_\_\_\_ Position \_\_\_\_\_  
(Please write on, or attach to, your company letterhead) T-8-37

► In messages which total many millions each month, Hammermill advertising reminds business men that the first rule in every well-run office is "Put It in Writing." It dramatizes the simple truth that the more efficiently a business is run, the more it relies on printing to do an important part of its work—through forms, memo sheets, bulletins and other printing.

To foster the policy and habit of "putting it in writing" is the aim of present Hammermill advertising. This advertising is helping to maintain a steady market for essential printing today. After the war it will be an important factor in originating orders for peacetime printing jobs.

Current Hammermill advertisements, like the one shown above, appear in: THE SATURDAY EVENING POST, TIME, BUSINESS WEEK, PRINTERS' INK, AMERICAN BUSINESS, PURCHASING and other leading publications. One reason why Hammermill Bond is known and is accepted with confidence by your customers.

**Send for it!**  
Mail coupon for copy of "3 Steps that Get Things Done," Hammermill idea-book which shows your customers how to use printed forms to get action.

**3 STEPS**  
that get things done

**HAMMERMILL BOND**

**BUY BONDS EVERY PAYDAY**

ARMY NAVY

Hammermill Paper Company  
Erie, Pennsylvania  
Please send me—free—my copy of "3 Steps that Get Things Done." After I read this I'll let you know how many additional copies I'll need for my customers.

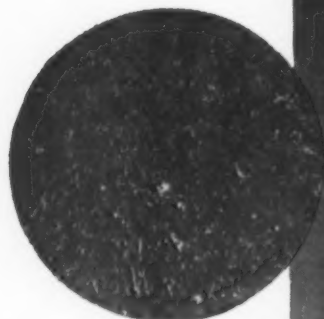
Name \_\_\_\_\_ Position \_\_\_\_\_  
(Please attach to, or write on, your business letterhead) ML-AP

APRIL, 1944

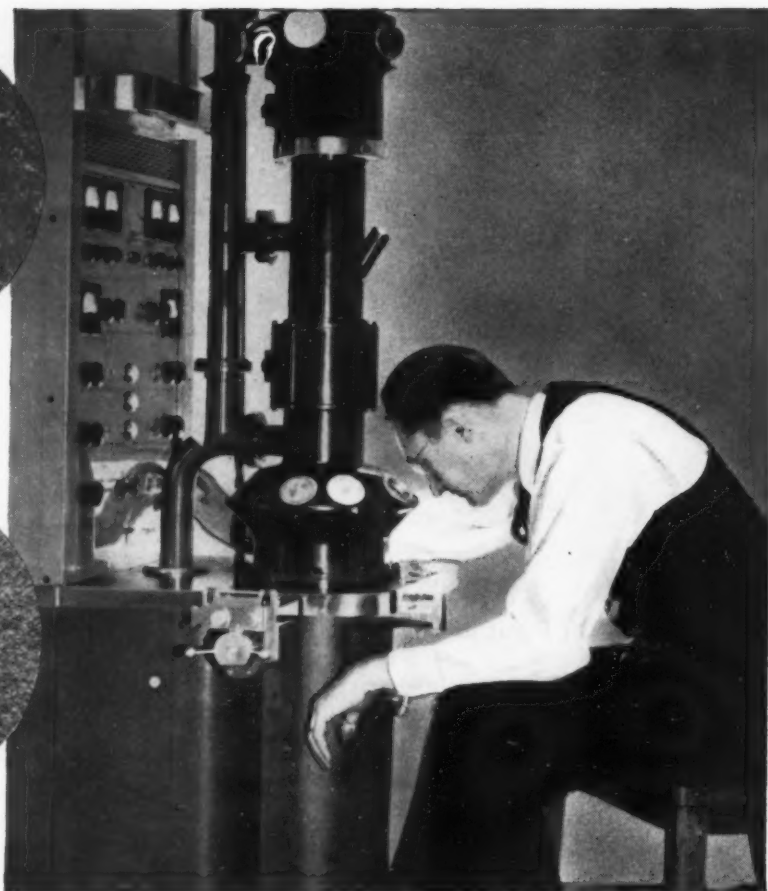
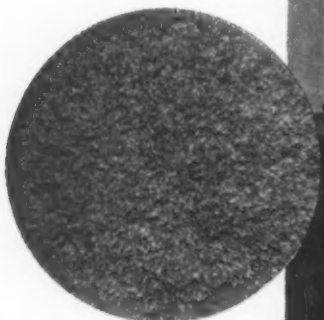


# THE DIFFERENCE REVEALED

**A.** Surface of ordinary blanket magnified 25 times by ordinary microscope — note pinholes and lack of uniformity.



**B.** Goodyear Velva-Tone blanket magnified 25 times by ordinary microscope showing uniform, velvet-smooth finish.



Ceaseless research is your guarantee of continued excellence of Goodyear-made printers supplies — and their future perfection. The advantages of the special synthetic rubber compound used to fabricate Goodyear Velva-Tone offset blankets are readily apparent when magnified 25 times by an ordinary microscope.

However, should higher magnification be necessary, the electron microscope, housed in Goodyear's new Research Laboratory, is capable of magnifying images to 100 thousand times their size — of bringing new worlds before our eyes. This new sight — new knowledge — confirms Goodyear's guiding principle that "the best is yet to come."

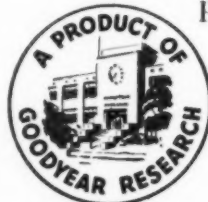
Velva-Tone—T.M. The Goodyear Tire & Rubber Company

Right now, Goodyear Velva-Tone offset blankets give you these qualities for the most faithful transfer of image: a mirror-like surface free of pinholes and pores, chemical resistance to all inks and driers used in offset printing, stretch reduced to less than 1½ per cent.

With Goodyear Velva-Tone, you can count on offset blankets built to precision gauge — blan-

kets that reduce make-ready time and eliminate debossing, embossing and tackiness.

Profit by Goodyear Research. Equip your presses with Velva-Tone offset blankets available in a black or red face to suit the preference or experience of the printer. For complete information, write Printers Supplies Department, Goodyear, Akron 16, Ohio.



LET'S ALL BACK THE ATTACK WITH WAR BONDS

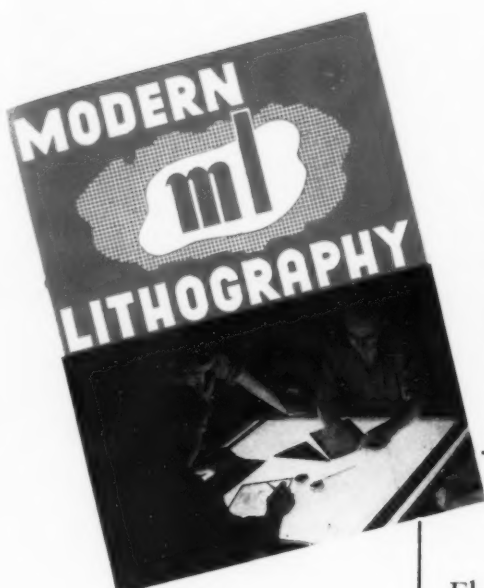


# GOOD YEAR

THE GREATEST NAME IN RUBBER

MODERN LITHOGRAPHY





### THIS MONTH'S COVER

This official U. S. Navy photograph was taken at the Navy Recruiting Bureau, White Plains, N. Y. Recruiting posters for WAVES and small forms, letterheads, and other Navy lithographic requirements are produced in this lithographing plant.

APRIL, 1944

VOLUME 12, No. 4

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Editor-In-Chief  
WAYNE E. DORLAND

Managing Editor  
ROBERT P. LONG

Technical Editor  
IRENE H. SAYRE

Business Manager  
THOMAS MORGAN

Address all correspondence to  
254 W. 31st St., New York 1, N. Y.

## MODERN LITHOGRAPHY

Reg. U. S. Pat. Office

**SUBSCRIPTION RATES:** One year \$3.00; two years \$5.00. In Canada one year \$4.00. Group subscriptions: Four or more entered as a group, \$1.50 each. (May be sent to different addresses). Service Men: \$1.50 per year mailed to camp or post.

WAYNE E. DORLAND, President; GRANT A. DORLAND, Vice-President, IRA P. MACNAIR, Secretary Treasurer. Published monthly on the 15th by The Photo-Lithographer, Inc., Advertising and Editorial Office, 254 W. 31st St., New York 1, N. Y. Advertising rates made known on application. Closing date for copy—25th of the month previous to date of issue. Entered as second class matter at the Post Office at New York, N. Y., under the Act of March 3, 1879.



# MACHINES, NOT LIVES



It is no secret that the global strategy of our Army-Navy command is to overwhelm the enemy with the vast armament production of American industry so that lives of American boys may be saved.

American victories have been won with the smallest possible casualties because of the quantity and quality of planes, tanks, guns supplied by American industry. This will also be true in the future if we maintain and even expand production of planes, tanks, guns, maps, naval charts, instruction manuals and the thousands of other things needed by our fighters. Bear in mind that the battles still ahead are the ones that will really test our ability to save our countrymen's lives by producing sufficient supplies of material so that we can overwhelm the enemy with steel, thus destroying his power to strike back.

We still face critical months in armament production. American industry and labor must not fail . . . it means

life or death to thousands of Americans.

Hoe is continuing to fulfill ahead of schedule Army-Navy calls for ordnance production. This wartime experience has greatly expanded our vast background of production and engineering knowledge. American lithographers can count on Hoe to draw liberally on this knowledge to develop greater performance records for postwar Hoe offset presses.

## R. HOE & CO., INC.

910 EAST 138th STREET, NEW YORK 54, N. Y.

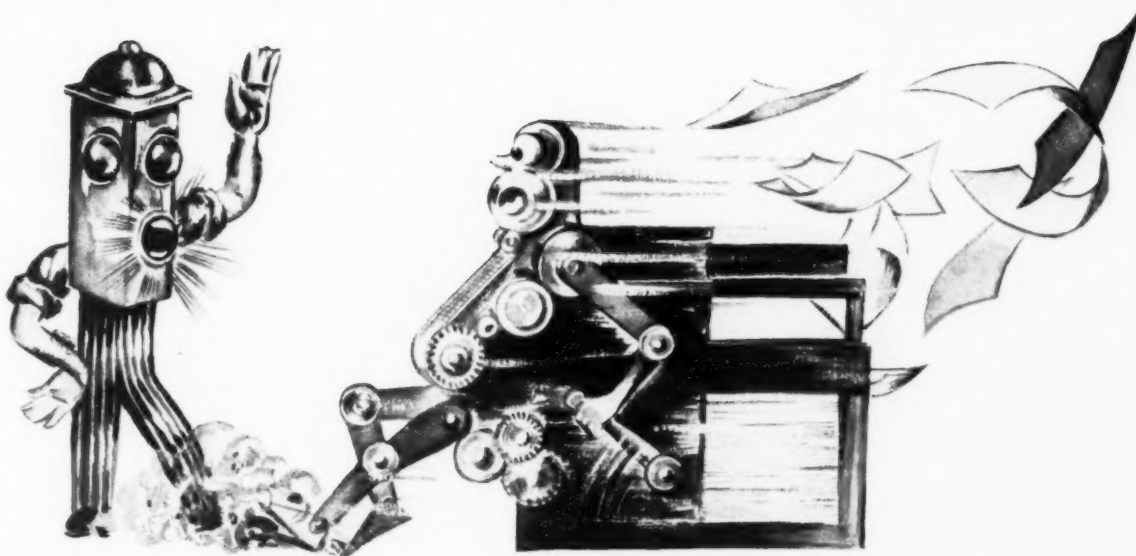
BOSTON

CHICAGO

BIRMINGHAM

SAN FRANCISCO

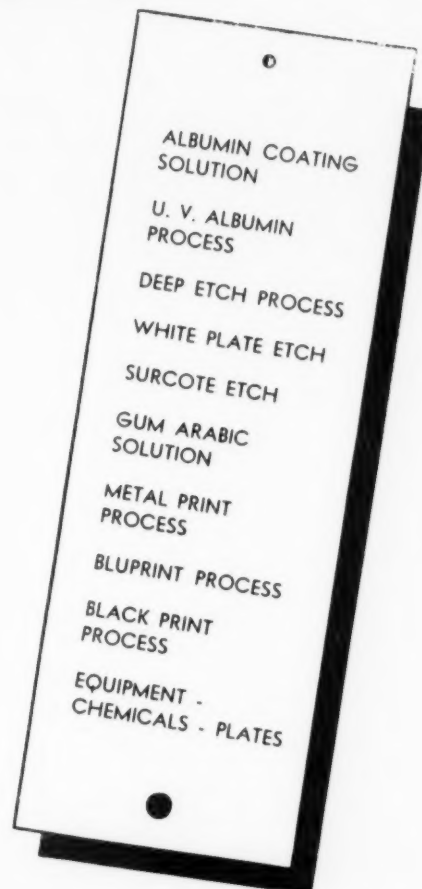
# "STOP and GO" IS TOUGH ON PROFITS



When presses stop to change plates from one job to the next the idle time has been accounted for, that time is part of the cost of the job. When the presses are idle because of plate breakdown — boy, that's another story.

To avoid loss of valuable time and materials — to say nothing about hard earned profits — you need dependable solutions. Under the pressure of wartime's accelerated production pace you can't afford to take chances with uncertain shop made solutions. You can eliminate platemaking headaches and losses by standardizing on PITMAN PREPARED PLATEMAKING SOLUTIONS. These stable, ready-to-use solutions are rigidly controlled in manufacture to assure uniform and dependable results.

A PITMAN representative will be glad to recommend the materials best suited to your particular platemaking needs.



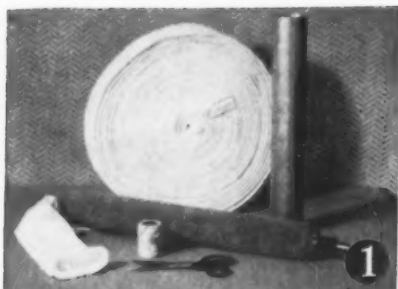
Harold M. **PITMAN** Company

LITHOGRAPHIC EQUIPMENT AND SUPPLY DIVISION

51st Ave. & 33d St.  
CHICAGO, ILL.

1110-13th Street  
NORTH BERGEN, N. J.





# If you like to sew

## JOIN A SEWING CIRCLE



**BUT**—if you don't like to sew, try the Godfrey Method of preparing dampening rollers.

**AQUATEX** and **DAMPABASE** are materials that will make life easier for you—"pull on like a stocking—fit like a glove."



- 1 Everything that is required: a roll of material, a metal tube, scissors, needle and thread.
- 2 Cut Aquatex or Dampabase to length. Thread it completely through the tube. Turn it down over the outside edge of the tube.
- 3 The transfer tube with the material placed over it.
- 4 Place the transfer tube over the roller. Then, holding the Aquatex or Dampabase on one end of the roller, slide the tube off the other end of the roller.
- 5 Cut off excess material and sew other end.

*Covering time, less than 3 minutes*

# GODFREY ROLLER COMPANY

*Sole Manufacturing Agents*



211-217 No. Camac St.  
Philadelphia, Pa.

WILLIAM P. SQUIBB, President

Roller makers for 79 years. Lithographic — composition — newspaper — varnish — lacquering — every kind of good roller required for good printing and lithographing.

BUY MORE WAR BONDS TO HASTEN V-DAY



NORTHWEST'S LOYAL PAPERMAKERS  
SERVING IN THE  
UNITED STATES ARMED FORCES

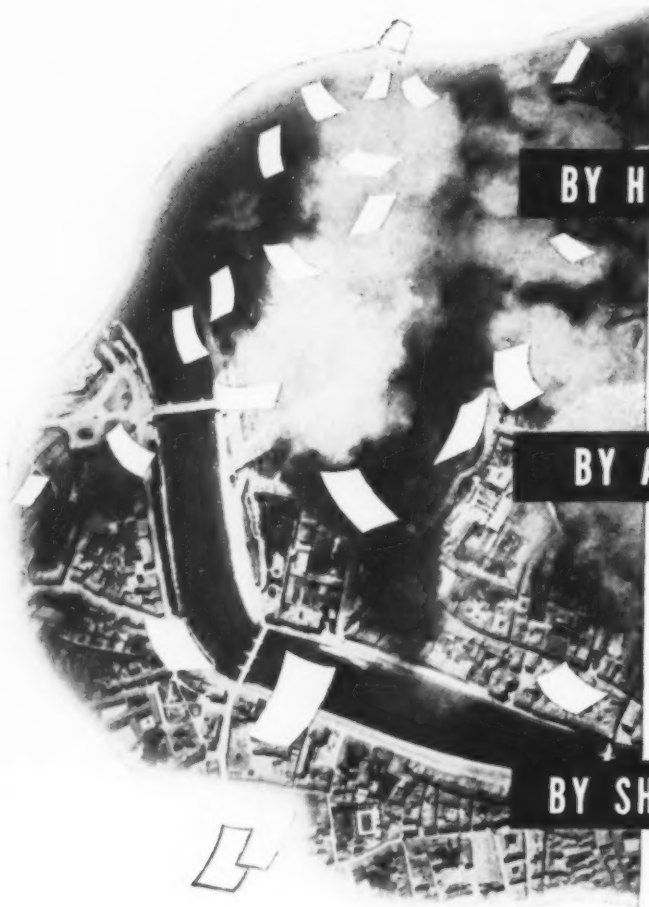


THE NORTHWEST PAPER COMPANY • CLOQUET, MINNESOTA

APRIL, 1944

9

# The PAPER barrage never stops



**BY HAND**



Agents or night patrols leave leaflets in enemy sectors.

**BY AIR**



The Tactical Air Forces drop printed propaganda far back of the lines.

**BY SHELL**



Enemy units as far as eight miles away are bombarded with leaflet-packed shells.

The morale-weakening barrage of paper leaflets, maps, pictures and news items never ceases.

The enemy gets the news of Russian gains and the bombing of German cities as quickly as you get it in your morning newspapers.

Forbidden topics and secret news of reverses on all fronts are printed on presses carried in trucks.

With all radios controlled, all news sources guarded, paper alone can get the word of Allied achievements to enemy troops, to occupied countries, to the busy underground.

But the propaganda part is only the beginning of paper's war work.

"Give paper a chance," say the experts when faced with shortages in vital or strategic materials.

That's why paper is used for surgical dressings, sun helmets, powder for big guns, bomb fins and small parachutes. Literally hundreds of strange jobs are being done today by paper. More are looming up.

Making a thousand miles of paper a day, as we do, we have seen paper and pulp products enlarge their horizons of usefulness again and again. We believe that in the peacetime industry to come, paper will continue to prove its value as an efficient, capable aid to modern living and to modern manufacturing.

## OXFORD PAPER COMPANY

230 Park Avenue, New York 17, N. Y.

WESTERN SALES OFFICE: 35 E. Wacker Drive, Chicago 1, Ill.  
MILLS AT: Rumford, Maine; West Carrollton, Ohio





# SHOW



METZIG



# Lestoil

**NON - INFLAMMABLE**

**NON - TOXIC**

*The Ideal Inexpensive Cleanser for Dampening Rollers*

Quickly dissolves the ink which the dampening rollers have accumulated. Requires less scrubbing and scraping of the fabric and consequently prolongs its life. » Reduces fire hazards. If a lighted match were thrown into Lestoil, the flame would go out. Its use may enable you to secure a reduction in your insurance rates. » Harmless to those coming in contact with it. There is no possibility of it causing dermatitis or similar skin irritations. » PH control tests show it is practically neutral, and if any residue is left in the dampening rollers, it will not have a detrimental effect on the press plate. » Very effective for washing sponges. It rapidly dissolves the grease and slime, leaving the sponge soft and fluffy, the same as when it was new. » Mixed with water, the solution costs but a few cents per gallon. » A liberal sample will be supplied on request.

**THE FUCHS & LANG MFG. COMPANY**

(ESTABLISHED 1870)

DIVISION - GENERAL PRINTING INK CORPORATION

**100 SIXTH AVENUE • NEW YORK**

**Boston   Chicago   Cincinnati   Cleveland   Philadelphia   St. Louis**  
**San Francisco   Fort Worth   Los Angeles   Toronto, Canada**

# INTERNATIONAL COOPERATION



## *Fighting Shoulder to Shoulder in INDIA*



Bombers over Burma...and Yanks, British and Indians sweating, straining to keep 'em flying. Differences of race, creed, and color are lost in something far great-

er: INTERNATIONAL COOPERATION to gain the victory—and win the peace.

Farm boy, shop worker, Ivy Leaguer—but every one a Yank. A long way from home but right at home helping the other

fellow...Yankee know-how, grit and good nature to spare.

The dislocations caused by war introduce many problems into the production—and buying—of paper. International aims, to the best of its ability, to cooperate in solving these problems.

★ BUY ANOTHER WAR BOND ★

*International*



PAPER COMPANY

220 E. 42nd ST., NEW YORK 17, N.Y.

PAPERS FOR PRINTING AND CONVERTING

APRIL, 1944

13



# HARRIS V-COAT

*Is a Complete Replacement for Albumen Plate Making Solutions . . With Many Added Advantages*

**THERE'S A HARRIS DEALER  
NEAR YOU . . . SEND FOR  
FOLDER AND PRICES**

W. E. BOOTH CO.  
Toronto - Montreal

CALIFORNIA INK CO.  
San Francisco, Los Angeles, Portland,  
Seattle, Salt Lake City

ALLAN B. CROKE CO.  
Boston

G. C. DOM SUPPLY CO.  
Cincinnati

DOMINION PRINTING INK & COLOR CO.,  
LTD.  
Vancouver

DOUTHITT CORPORATION  
Detroit

HARRIS-SEYBOLD-POTTER CO.  
Atlanta

A. E. HEINSOHN  
Denver

HILL-HENTSCHEL CO.  
St. Louis, Memphis, Dallas, Oklahoma City

MCKINLEY LITHO SUPPLY CO.  
Cincinnati

MEDO PHOTO SUPPLY CORP.  
New York City

METZGER PHOTO SUPPLY CO.  
Akron

NORMAN-WILLETS CO.  
Chicago

PHILLIPS & JACOBS CO.  
Philadelphia

THE PHOTOTECHNICAL LABORATORY  
Washington, D. C.

ROBERTS & PORTER, INC.  
New York City—Chicago

SINCLAIR & VALENTINE CO.  
Baltimore

- The Images Are Tough . .  
Give Long Runs

- It Will Not Spoil

- Freezing or Boiling Will  
Not Affect It

- Not Affected by Climatic  
Changes

- Extremely Low in Cost

1 GAL. V-COAT MAKES APPROXIMATELY  
1¾ GAL. OF COATING SOLUTION (requires  
only the addition of water and Ammonium  
Dichromate solution)

- Protects Against Spoiled  
Plates Caused by Varying Chemicals

**TRY V-COAT . . .**

*Its Performance Has Been Proven*

SOLD IN 1 QT. AND 1 GAL. CONTAINERS

A PRODUCT OF THE  
HARRIS RESEARCH  
LABORATORY. Contains  
Materials New to Lithography.

**HARRIS-SEYBOLD-POTTER COMPANY**

CHEMICAL DIVISION

CLEVELAND 5, OHIO



## WANTED ALIVE: Paul Bunyan and Babe

Paul Bunyan and Babe could end all paper shortages for all time to come, for the mighty-muscled, bellicose hero of the lumber camps and the blue ox that measured 42 axe handles and a plug of chewing tobacco between the horns could top, fell, and haul trees as though they were match sticks.

The root of the paper shortage is in the forests, where the blue snow falls . . . where Paul Bunyan and Babe curse and bellow at the idle work-camps and moan for the lumberjacks who have packed off to war.

There'll be happier days. Paul Bunyan and Babe will work again along the timberline. Meanwhile, "Paper Makers to America" works ceaselessly in its many mills to

help satisfy the gigantic war-time demands . . . to help Mead Merchants fill essential orders from private enterprise.

Use paper wisely. Save it when you can. Let each sheet of Mead, Dill & Collins, or Wheelwright stock you use do Bunyan service in helping Uncle Sam sell.

U. S. WAR SAVINGS BONDS: *The Best Buy in Paper Today!*

★★★ Mead offers a completely diversified line of papers in colors, substances, and surfaces for every printed use, including such famous grades as Mead Bond; Moistrite Bond and Offset; Process Plate; Wheelwright Bristols and Indexes; D & C Black & White; Printflex; Canterbury Text; and De & Se Tints.

## THE MEAD CORPORATION

THE MEAD SALES COMPANY, 230 PARK AVENUE, NEW YORK 17 • PHILADELPHIA • BOSTON • CHICAGO • DAYTON • KINGSFORD  
DILL & COLLINS INC. • WHEELWRIGHT PAPERS, INC.



# PRESSMEN "LOVE IT"



## "IMPERIAL" FOUNTAIN SOLUTION ASSURES CLEANER, BETTER PRESS-WORK

A pressman's job depends on the quality of his press-work. Small wonder, then, that pressmen all over the world are "going steady" with **IMPERIAL**. • As a press water fountain solution base, **IMPERIAL** Concentrate is unequalled, for use with either zinc or aluminum plates. It keeps the brass water roller free of all scum and keeps the plate de-sensitized, a combination that assures best

press-work since tinting and scumming is reduced to a minimum. • **IMPERIAL** Concentrate is always uniform, made under strict laboratory control and tested before bottling. **IMPERIAL** is economical, too, because it is highly concentrated. Only one ounce is needed with two gallons of water. • Complete directions on each bottle.

Gallon . . . . \$7.00

½-Gallon . . . . 3.75

Quart . . . . 2.00

F.O.B. New York or your dealer:

The FUCHS & LANG MFG. CO., Division  
General Printing Ink Corp.  
CALIFORNIA INK CO., INC.

CANADA PRINTING INK CO., LTD.

(Prices slightly higher in Canada for Imperial measure)

Champion Albumin  
B.P.B. Ready-to-use Sensitizer  
Jiffy Developing Ink  
Jiffy Heavy (Deep Etch)  
Developing Ink  
Transol Developing Ink  
Lith Vilo (Non Poison)  
Plate Etch  
Dr. Hans Zuber Etch Salts  
Imperial Fountain Solution  
Fountex, Fountain base for  
use in fountain solutions  
Non-Souring Pure Gum Solution

### LITHO CHEMICAL & SUPPLY CO., Inc.

63 PARK ROW NEW YORK 7, N. Y.



Sav-a-lac Plate Intensifier  
(Purple)  
Griptite, a "stop walk"  
plate intensifier  
Dumore Asphaltum Plate  
Wash-out solution  
Liquid Tusche  
Black Opaque "GRAPH"  
Red Opaque "VELVO"  
White Opaque "SWAN"  
Negative Stains, red and black  
Staging Solution  
Firpintine,  
Turpentine Substitute



NEVER HAS THERE BEEN A BETTER TIME  
to "grade up" your Letterhead Sales  
WITH FOX RIVER *Masterline* ANNIVERSARY BOND

SEE FOR YOURSELF . . . Send for FREE SALES KIT!

NATIONALLY ADVERTISED



TO YOUR BEST  
LETTERHEAD  
PROSPECTS . . .

Consistent, timely ads in selected consumer magazines — Dun's Review, Banking, Purchasing and The Reporter of Direct Mail Advertising — tell the story of Masterline ALL-RAG ANNIVERSARY BOND to almost 100,000 of America's top-flight executives and users of fine business papers . . . your best prospects for profitable letterhead business! In addition, Fox River advertising is appearing in leading printing and lithographing publications.

Never has there been a better time to "grade up" your letterhead sales. Find out how you can cash in by featuring ALL-RAG ANNIVERSARY BOND. Write for Fox River's "See for Yourself" comparison kit.

Now that non-rag and part-rag papers tend to be grayish and flimsy, due to wartime shortages of wood pulp and bleaching chemicals — *all-rag* stock, such as Masterline Anniversary Bond, is today's *only exceptional* value in letterhead paper! Just as crisp, clean, brilliant white, truly permanent and impressive as before the war — yet costs your customers only  $\frac{1}{8}\%$  more per letter than 25% rag-content bond. You can *prove* the greater value of *all-rag Anniversary Bond* at a glance . . . quickly, convincingly . . . with Fox River's "See for Yourself" portfolio (featured in national advertising) . . . a valuable addition to your sales kit. Write for a copy today.

FOX RIVER PAPER CORPORATION

406 SOUTH APPLETON STREET . . . APPLETON, WISCONSIN



*Masterline*

PAPERS FOR BUSINESS

ANNIVERSARY Bond, Ledger, Onion Skin . . . . .	100% Rag
OLD BADGER Bond and Ledger . . . . .	75% Rag
ENGLISH Bond and Ledger . . . . .	50% Rag
DICTATION Bond, Ledger, Onion Skin . . . . .	25% Rag
DICTATION Tru-Opaque Bond . . . . .	25% Rag

THE FINEST LETTERHEAD PAPER IS MADE FROM *all* RAGS

## THE RIGHT CHEMICALS . . .

Your chemicals must be right. They play an important part in trouble-free runs, quality jobs, and profits.

Make sure that your chemicals are right by insisting on **MERCK CHEMICALS FOR THE GRAPHIC ARTS.**

Exacting laboratory control ensures their purity, uniformity, and reliability. You can depend on them for the same good results, from the same procedures, every time. Write for catalog.



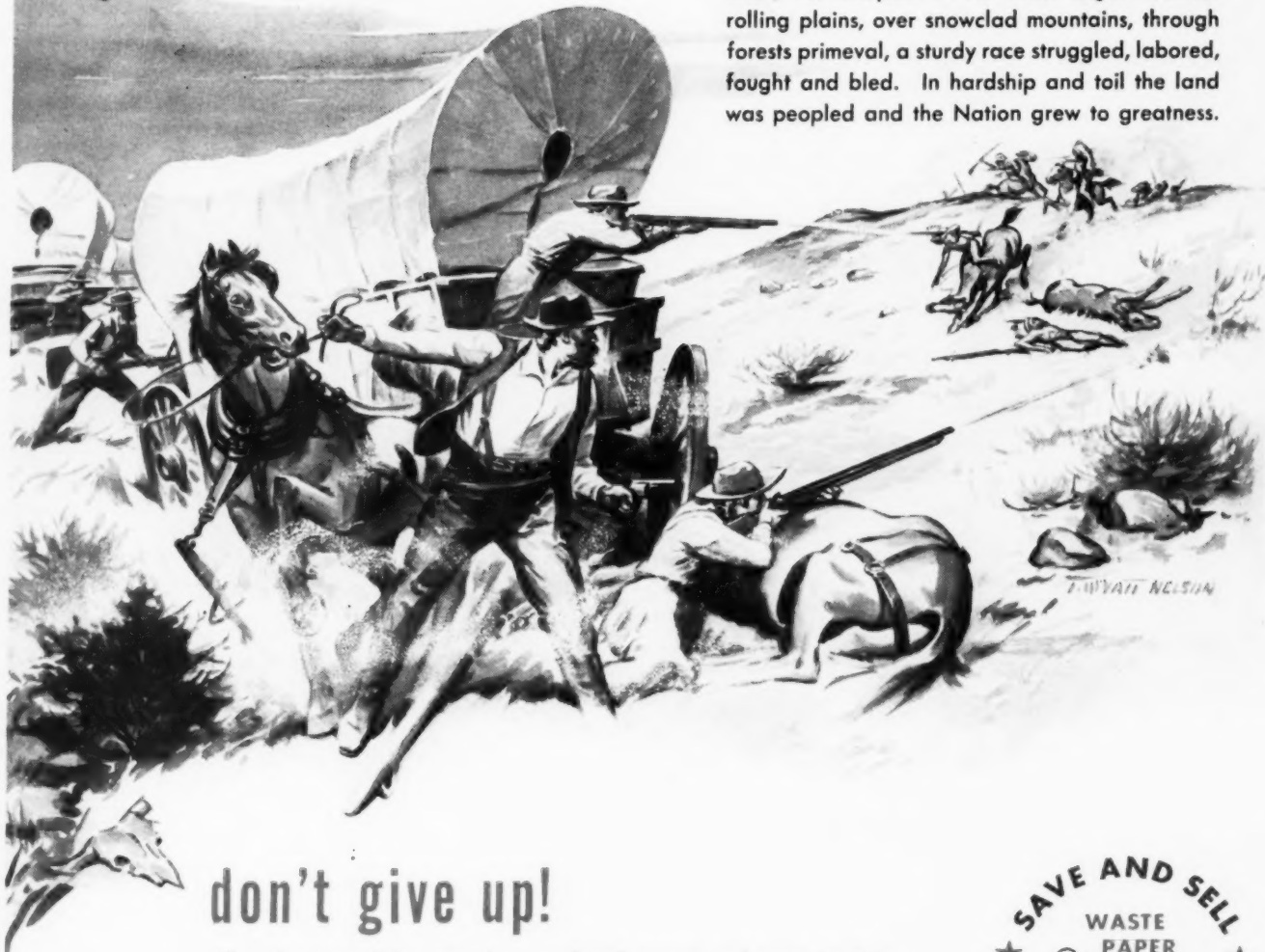
**MERCK & CO., Inc.** *Manufacturing Chemists* **RAHWAY, N. J.**

New York, N. Y., Philadelphia, Pa., St. Louis, Mo., Elkton, Va., Chicago, Ill., Los Angeles, Cal.

*In Canada:* MERCK & CO., Ltd., Montreal and Toronto

# AN EMPIRE BECKONED

The Louisiana Purchase opened a vast empire to the enterprise of our pioneer forefathers. Soon after, the conquest of the West began. Across rolling plains, over snowclad mountains, through forests primeval, a sturdy race struggled, labored, fought and bled. In hardship and toil the land was peopled and the Nation grew to greatness.



## don't give up!

The pioneers of frontier days explored a vast, unknown territory. Many of your customers did too, before their brand names attained their present value. But the job of exploration and struggle is in the past. They don't want to go through with it again. They may have to, though, unless they keep up their point-of-purchase advertising.

The public's fancy is fickle. Once their brands are no longer in the public eye, recollection will soon fade and some day they will have to do the whole costly job all over again. No advertiser can afford to gamble against such heavy odds. Help your customers play safe — Help them keep their contacts alive with point-of-purchase displays.



## ARVEY CORPORATION

SERVING AMERICA'S ADVERTISERS SINCE 1905

CHICAGO

DETROIT

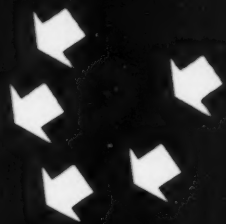
JERSEY CITY

APRIL, 1944

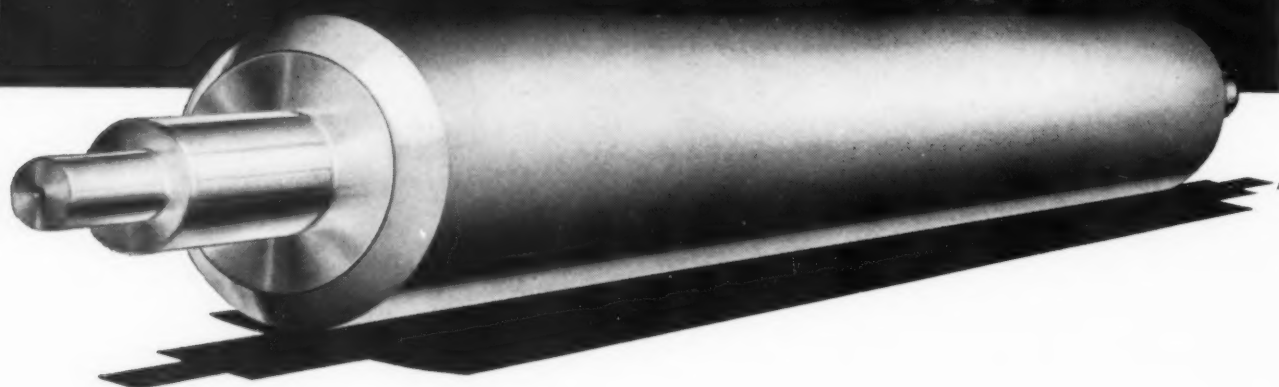
19



*There is Only One*  
**ORIGINAL AND PIONEER  
 SYNTHETIC RUBBER ROLLER**



*Its Name is-*  
**DAYCO**



The patented renewable surface DAYCO is different from any other synthetic rubber roller. It has proved its long life and complete immunity to heat and cold through 11 years of service under every pressroom condition—the only roller backed by 29 years' experience in the development of new and exclusive rubber and synthetic rubber products.

And only with DAYCO'S exclusive, patented renewable surface can you get DAYCO results. It is tougher than any other—unaffected by heat and cold—can't be corroded by inks, varnish and washes—will not crack or chip. DAYCOS are "tailored" to your exact plas-

ticity requirements and retain perfect symmetry and tack for millions of impressions.

You put an end to your roller problems when you switch to DAYCO Rollers!

THE DAYTON RUBBER MFG. CO.  
 DAYTON 1, OHIO

*One of the operators of the first Government Dual-Unit  
 Type Synthetic Rubber Production Plants*

**LET'S ALL BACK THE ATTACK WITH WAR BONDS**

*Dayco Rollers by* **Dayton**  
REG. TRADE MARK THE DAYTON RUBBER MFG. CO.  
**Rubber**

# "HAVE YOU AN UNUSUAL PLATE MAKING PROBLEM?"

● Those are the ones which really intrigue us. We love them for the simple reason that our business has been built upon finding the answers and equipping to handle them.

So it is only natural that here at Graphic Arts you would find master craftsmen, over a hundred of them, and the newest, most modern and widest range of technical equipment to be found in any commercial plate making plant. Complete facilities are afforded for the production of all kinds of work, including color process plates, black and whites, highlights, originals for hand transfer, crayon color plates, posters, line or halftone negatives or positives for machine transfer, or photo-composed press plates, albumen or deep etch.

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# Paper

## and POSTWAR PLANNING

Business seeks through postwar planning to prevent serious depression at home, just as Government puts its international fences in order to avoid chaos following sudden military successes. And paper will play a large part in this postwar economy! Peace will end the man power shortage that causes today's shortage of pulpwood and paper. Paper then will resume its full time job of building our business, minds, health and future . . . and will offer many new services and products developed during the war. Like our servicemen, paper will discard fighting togs immediately and get back to constructive civilian pursuits



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# EDITORIALS

**A** DAY school for litho apprentices, jointly organized in New York by representatives of employing lithographers and of the Amalgamated Lithographers of America, is a fine example of co-operation to meet the toughest problem yet presented to the lithographic trade by the war—shortage of manpower (see page 39 for details.) A lot of sweat, argument, planning and work, has gone into the project since its inception last September. The problem of finding a place to hold such classes was solved by choosing the New York Trade School where Lithographic equipment is available for training purposes, the school having been used for a number of years, as well as at present, for the Lithographic Technical Foundation's classes. The problem of obtaining capable instructors who could arrange to have time available for the project was practically insurmountable, but was finally solved. The problem of tuition was settled by the plan for the apprentices to pay one-half and the employer to pay one-half, with the apprentice drawing full pay for the four hours per week spent at school away from his work. There was no problem of potential students, there being an estimated 150 to 200 apprentices in the New York area. Some of those on the committee have said that an enrollment of 50 or 60 would be satisfactory at least in the beginning.

As we go to press, however, classes, although scheduled to begin the week of March 20, have not yet begun. They are scheduled to begin momentarily, but we are told that many shops feel that their apprentices cannot be spared four hours per week to attend classes.

We would hate to see such a sensible and commendable project fail on this score after plowing through all the rough waters of the last six months. If the training of men in these times must be abandoned because an apprentice cannot be spared one hour out of ten, then we throw up our hands.

We have every hope, and those working on the project assure us of their confidence that the school will open and will pay off. We hope that classes are already under way by the time these thoughts appear in print.

A successful school in New York might well be the beginning of other such undertakings in other cities. To us it appears to be the best approach to the manpower problem yet developed. One thing is fairly certain—if the industry doesn't solve its own manpower problem, nobody else will.



**G**RAPHIC arts trade association executives journeyed to Pittsburgh during March where they took the bull by the horns—the bull being the problem of what to do with the vast amount of government and military lithographic equipment accumulated during the war. (Story page 27.) The Public Printer was there and expressed his understanding of the problem and his assurance that the weight of his office in officialdom would be used to protect commercial lithographers and printers from the disastrous effects potential in the possible dumping of this equipment on the market.

The problem has been widely discussed recently in the trade press and is of real concern to industry-minded lithographers who see in this equipment many possible "bed room shops" set up with small equipment and with little or no financial backing. Such shops are sure to sell their offset products as "cheap substitutes for printing," since they have little except low prices with which to entice customers. Nobody objects to good competition, and certainly not to the establishment of legitimate lithographing concerns, but a large percentage of "shoe-string" shops are doomed to failure. And in their failing, they blacken the name of offset printing.

When the committee of trade executives makes its report in April, lithographers everywhere will do well to study the proposals, and back whatever plan is evolved, so that solid industry representation may be behind the final plan as it is presented to the government.

In the meantime intelligent thought should be given to methods of making facts of lithographic operations easily available to those eyeing this as a lucrative field when the war is won.

# Fluorescent Lithography

Activated by invisible light this type of offset is playing a phenomenal war role and may have broad peacetime utility



Capt. M. H. Bruno and Lt. Col. (then Maj.) J. G. Strobbridge of Army Map Service inspect a fluorescent map, used in a blacked out plane, a typical wartime application, of fluorescent lithography.

**A**MONG many war uses of luminescent materials, fluorescent charts and maps have occupied an interesting place. A brief review of the development of fluorescent paper and fluorescent printing for aeronautical charts is the object of this note. It was not entirely a new problem. Ultraviolet light and its associated phenomena had already undergone numerous practical applications, particularly in Europe and England,<sup>2, 3, 4</sup> including printing with fluorescent ink. The perfection of the paper, however, is a real tribute to the paper and pigment industries of this country. It is a fine job.

Fluorescent charts, tables, and other printed matter are used by Air Force pilots and bombardiers primarily because aircraft are equipped with an ultraviolet light source for other reasons; and this light is invisible if inadvertently directed toward the enemy. Practically all charts are printed on offset lithographic presses, and many millions of charts must be produced annually.<sup>5, 6</sup> When the chart makers were confronted with this war requirement, the first and most obvious solution was fluorescent inks applied by offset press to ordinary white chart paper. Inks

were produced which would fluoresce in colors similar to the conventional chart colors seen in daylight. A uniform light yellow fluorescent base is usually applied to the paper in this process because the uncoated paper appears dark under ultraviolet light, and marginal notes and other printed material must be illuminated.

**F**LUORESCENT illumination for aeronautical charts was studied by the Civil Aeronautics Administration several years before the war as a possible measure to increase safety in night flying. The conclusion of that study, where the element of detection of light source by hostile observers was absent, was that no outstanding advantage was apparent over normal cockpit lighting methods. The tests carried out at that time had afforded chart makers some opportunity to appraise various methods of applying fluorescence to charts printed in the transparent lithographic colors normally used for this purpose. The re-

sults of experiments conducted at that time indicated that a very presentable print could be obtained with fluorescent inks and fluorescent coatings applied by an offset lithographic press.

The question of dark adaptation and night vision was involved. The Navy had already adopted red lights for cockpit use in planes, naval surgeons having concluded from extensive experiments<sup>7</sup> that little loss in dark adaptation occurred when objects were viewed under light of longer wave lengths than 600 millimicrons. At low levels of brightness, however, the difference in loss of visual acuity, after viewing a lighted surface in the red as compared to nearly equal brightness in the orange-yellow region, is of less importance than was supposed at first.

The Navy, having already adopted a red light for planes and other craft, requires that all colors used on charts be visible under red lights. The British seem to prefer amber illumination for charts. The chart producers in the United States are therefore required to make charts which are "visible under red, amber, ultraviolet, and daylight," and this note appears on charts which are so prepared. Although red illumination

*By*

**LT. COMDR. PAUL A. SMITH**

Chief, Aeronautical Branch,  
U. S. Coast & Geodetic Survey  
(Before TAPPI, New York, Feb., 1944)

**MODERN LITHOGRAPHY**

does preserve dark adaptation somewhat better than the yellow-orange light, the difference at low levels of brightness does not seem to be an important factor. The better chromatic values obtainable under the orange-yellow illumination makes it possible to use a wider range of colors on the chart to emphasize certain charted information than does the deep red. This conclusion was reached from comprehensive tests made at the National Bureau of Standards on fluorescent samples, as well as practical tests made by the Army Air Forces.

A review of the problem revealed that several methods for making fluorescent charts were possible:

1. Printing might be done with fluorescent inks on ordinary chart

paper uncoated with fluorescence.

2. A thin coating of invisible fluorescent pigments could be applied to the paper by offset or rotary press or other means, and the charts then printed with ordinary lithographic inks, or with fluorescent inks, or a combination of both.
3. Maps and charts printed in the ordinary manner might be treated after printing with an invisible or transparent fluorescent coating.
4. Fluorescence could be made into the paper by the paper manufacturers in any of several processes.
5. A transparent fluorescent plastic envelope might be provided

into which the chart could be slipped when in use.

The product obtained by the first three methods is subject to certain disadvantages, namely:

1. low resistance to abrasion in use and handling;
2. erasures on the surface of the chart during use or for purposes such as making hand corrections are impracticable without destruction of fluorescent coating;
3. more skillful operation of presses and careful attention with close inspection of prints for fluorescent color and brilliance as well as daylight inspection are required;
4. uniformity of fluorescent color and brilliance is dependent upon individual operation. It would be especially hard to maintain on field presses.
5. lower press speeds are required;
6. special inks are necessary.

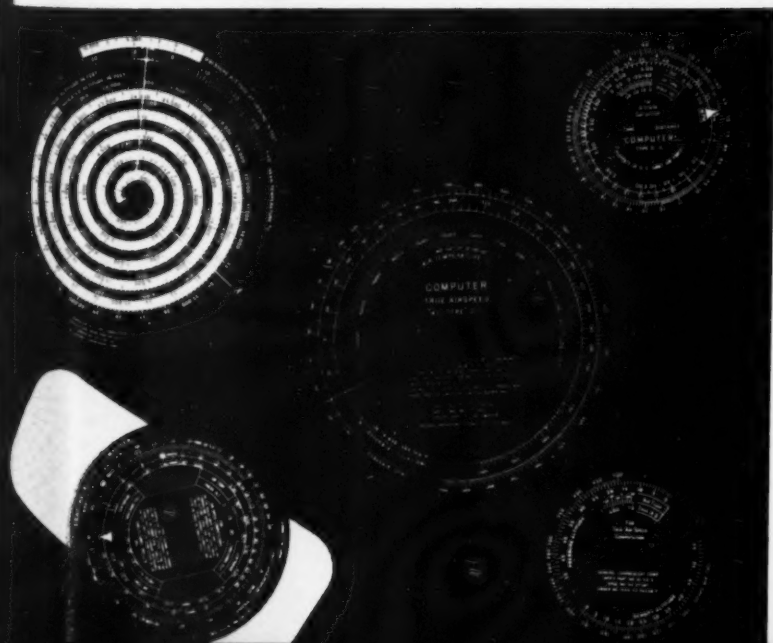
Advantages of fluorescent application to ordinary chart paper are:

1. no special paper is required, thus making fluorescent printing practicable with any available stocks;
2. under ultraviolet a slightly greater range in color contrasts and values is possible.

It was found that any fluorescent overcoating of satisfactory stability and durability caused the chart to have a dull appearance. The transparent, plastic envelope required another piece of equipment for planes and pilot, and was therefore undesirable if the properties could be manufactured into the chart.

An ideal fluorescent paper offered the greatest advantages if it could be perfected because in this event it could be used with the least change in ordinary chart printing processes. The nearest available approach to the ideal at the time was a thin coating of fluorescence applied to the conventional chart paper before printing, with the possible additional use of fluorescent inks as necessary. This method was, therefore, put into im-

Another typical wartime use of fluorescent inks is illustrated by these aircraft dials and gauges. Top photo was taken under regular photographic light. The lower, taken under black light (ultra violet), shows how fluorescent pigments are activated and become visible. (Courtesy New Jersey Zinc Co.)





mediate use by the War Department.

A fluorescent paper which would produce the desired effect with ordinary lithographic inks was obviously an attractive possibility. Inquiries from experts at the Government Printing Office, the National Museum, National Bureau of Standards, and the Geophysical Laboratory of the Carnegie Institution of Washington indicated that a satisfactory fluorescent paper might be produced in the quantities necessary within a few weeks.

After several conferences with representatives of a number of paper manufacturers and the War Production Board, satisfactory preliminary samples of coated paper were produced by the industry and the fluorescent paper was put into use by the Coast and Geodetic Survey. Because of limitation on quantities of fluorescent pigments, the coated paper seemed to be the most practicable. It had certain disadvantages, the main one being that it was to a slight degree subject to the same weakness of the printed-on fluorescence; that is, the fluorescence could be scraped off if hand corrections by knife erasures were made.

A new map paper, having unusual properties of wet strength, was under development for the War Department about the same time as the fluorescent paper was being tested. It was obviously desirable to use the same base stock specifications for the fluorescent paper as for the new chart paper without fluorescence. Preliminary mill runs were promising although costs were naturally higher than coated paper. Eventually, however, a satisfactory sheet was produced on identical specifications to the new high wet strength paper<sup>8</sup>. Fluorescent brilliance and color were satisfactory to the Air Forces and this paper is now standard for Air Forces fluorescent charts.

**A**S stated by Dr. Stutz<sup>9</sup>, it is possible to obtain almost any fluorescent color desired with stable inorganic pigments. It is therefore possible to match daylight chart colors with fluorescent colors if the additional fluorescent brilliance is required.

#### Here Are a Few Postwar Applications of Luminescent Pigments

(As outlined by L. H. Trott, of The New Jersey Zinc Co., in a recent article in *Paint, Oil and Chemical Review*.)

1. **ADVERTISING AND GRAPHIC ARTS** for processing of artwork, billboards, displays, signs, printed matter by letter press, lithography, offset, silk-screen or decalcomanias, or artists' colors, crayons or chalks.
2. **ARCHITECTURAL AND INTERIOR DECORATION** murals, decorative designs and ornaments, drapes and curtains, costume effects in theatres, restaurants, night clubs, beauty salons, retail and department stores, commercial and public buildings.
3. **PHOTO-TEMPLET REPRODUCTIONS** without a camera or drawings or layouts for "lofting" airplane, automotive, and other industrial parts.
4. **SAFETY PAPERS** for detection of alteration and erasure on bank notes, tax stamps, licenses, official credentials, membership cards and identification.
5. **INDUSTRIAL APPLICATIONS** dials and instrument panels, directional and identification signs, light reflectors, painting as an aid to lighting, street numbers, name plates and trade marks.
6. **TRANSPORTATION** railroad markers, Pullman car directional signs, Club car decorative and lighting effects, shipboard and yacht, markers signs and decorations.
7. **COMMERCIAL AND HOME CONSUMPTION** radio and television dials, light reflectors, table decorations, flowers, ornaments, ashtrays, novelties, menu cards and name plate markers, switch and bell-button plates, jewelry, Christmas tree ornaments, dresser sets, cigarette cases, powder and rouge compacts, purse trimmings, belt and shoe buckles, decorative wall paper, house and office paints as aids to more efficient lighting.

So far, however, the fluorescent paper seems to be satisfactory, and the additional use of fluorescent inks has not been needed.

Ordinary lithographic inks used for chart printing are nearly transparent. When fluorescent pigments are added,

the ink becomes slightly more opaque.

Specifications<sup>10</sup> for the fluorescent color and brilliance are, in the case of the chart paper, based upon National Bureau of Standards recommendations. Briefly, they require that the fluorescent brightness shall be 200 microlamberts, and fluorescent chromaticity coordinates  $x = .514$ ,  $y = .478$  when the density of radiant flux of wave length 365 m $\mu$  is 3.2 microwatts per square centimeter (NBS Test No. IV-3/43P-75/43). A secondary standard consisting of a paper sample meeting the above specifications is generally supplied to the manufacturer as the most practicable control during production.

Since aeronautical charts are generally used in daylight or under ordinary artificial light, care is taken that the addition of fluorescent properties does not impair their utility and legibility in daylight or white light.

A word may also be said about other fluorescent documents used by pilots and aircraft personnel under ultraviolet light. Tables, navigational data, and other printed matter have been produced by the Government Printing Office and others with fluorescent ink on black paper; by offset printing with a reversed plate on fluorescent paper using black ink; and by a process whereby letters and figures are printed with a letter press on black material.

At present, fluorescent charts are produced solely for war uses. The simplest and most satisfactory method yet found is the use of the fluorescent paper with ordinary printing inks and ordinary printing processes.

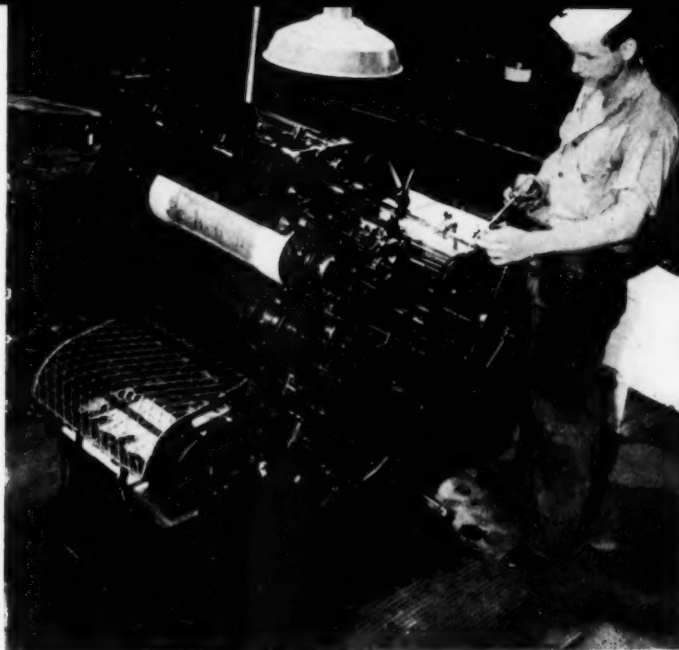
Fluorescent charts and other articles produced in fluorescence are spectacular in appearance. Obviously, future advances in this field may be expected as the phenomenon is applied to more and more utilitarian requirements, and the basic materials become more plentiful.

Purposely nothing has been said about the details of the methods used in applying fluorescence to the paper or to the inks for chart printing. These processes represent in most cases ingenious work on the part of

(Continued on Page 69)

#### MODERN LITHOGRAPHY

Typical of litho equipment operated by various branches of the government is this small offset press in the Navy Recruiting Bureau, White Plains, New York.



## Soderstrom Heads Committee of Trade Association Executives to Develop Plan of Industry Action

# Government Litho Equipment Poses Problem

**T**HE problem of what to do at the end of the war with an estimated \$50,000,000 worth of lithographing and printing equipment now in the hands of the government and armed forces, was attacked by graphic arts trade association executives during March, and a definite plan is now being evolved for presentation to trade representatives in April. The subject was dealt with at length at the meeting, March 21 and 22, in Pittsburgh, of the Graphic Arts Trade Association Executives. Speakers and guests discussing this and other trade problems included Public Printer A. E. Giegengack, David B. Fell, chief of the machinery section, Printing & Publishing Division of the WPB; James L. Cockrell, president of the United Typothetae of America; James F. Newcomb and Edwin Lennox, co-chairmen of the Joint Committee on Governmental Relations Affecting Commercial Printing; and Henry Hoke, managing director of the Graphic Arts Victory Committee.

A committee, under the chairmanship of Walter E. Soderstrom, executive secretary of the National Association of Photo-Lithographers, was appointed to study the disposal of surplus equipment. This committee is to develop a plan and present it the latter part of April, in a meeting

in New York, to representatives of the national trade associations and equipment manufacturers. Other members of this committee include Joseph Smith, New York Employing Printers Association; S. Frank Beatty, Graphic Arts Association of Illinois; C. C. Means, Typothetae of Detroit; George P. Mallonee, Graphic Arts Association of Washington, D. C.; and John Bresnahan, counsel for the latter group.

Summing up the problem, a spokesman of the committee stated that of the estimated \$50,000,000 worth of equipment, probably \$5,000,000 of it is in large lithographic and letterpress equipment. The remaining \$45,000,000 is largely in small equipment such as Multilith, Davidson, and similar duplicators. Much of it is overseas or installed in navy vessels and will probably never be returned to U. S. Markets, but much of it is in this country, it was said.

**T**HE Public Printer summed up the problem as to what will result if, after the termination of the war, great quantities of partly used machinery and other equipment are placed on the market. He said, in part:

"There is a vast quantity of printing machinery in use by the Government, especially by the War and Navy Departments and the Air Forces, which

the Government will not need after the war. Naturally, steps will be taken to dispose of it. Such equipment could be a menace to the entire industry if not properly regulated and controlled. It could be a detriment to printing machinery and equipment manufacturers and, if available in large quantities, could greatly interfere with, if not destroy, the market for new equipment for several years to come. Also, it could become a menace to the security of already existing printing plants and shops throughout the country, particularly if it fell into the hands of journeymen craftsmen who, finding themselves temporarily without jobs, would decide to 'go into the printing business.' With low cost equipment and no credit, they would be tempted to sell the finished product entirely on a price basis and thereby would destroy price standards which have taken years to develop and maintain. The adverse results of such a situation would be felt by everybody in the industry.

"The availability of such equipment might also encourage the establishment of private printing plants operated by firms whose principal business is the manufacture of some commodity other than printing. What to do with such a situation is a problem which challenges the thought of the best minds in the industry and imposes a responsibility that should be accepted by anyone who has any real interest in the Graphic Arts. Inasmuch as the problem will be industry wide, any effort to solve it should be participated in by representatives of the various groups in the Graphic Arts.

"You will recall that the Public Printer, under federal statute, has the first opportunity to obtain printing equipment for which a government

(Continued on Page 67)

(The following letters were written as a result of several articles recently published in MODERN LITHOGRAPHY, written by Theodore Makarius. Both of the authors listed above are recognized authorities on offset presswork. We have previously summarized Mr. Makarius' background as co-author of textbooks, trade school instructor, pressroom superintendent, and trouble-shooter. Mr. Diehl has, in his own words, "come a long way in lithography since 1907—from friction feed to 44 x 64 inch two-color press operation on every class of work from a postage stamp to a 24-sheet poster. Besides nearly 20 years as foreman, I have two years of letterpress foremanship to my credit." He is currently writing a series of articles for "Lithographers Journal," published for members of the Amalgamated Lithographers of America. The problems discussed in these letters recur frequently in offset pressrooms.—Ed.)

**DEAR MR. MAKARIUS:**

I wish to compliment you on your timely trade articles appearing in print periodically. We oldsters as well as the younger members of the craft profit a great deal from such topics. I am writing to seek your opinion on two problems.

Static, the old, old demon, is the biggest production menace we have. I mean the static caused by sheets heating up through driers. Yes, don't use excess, I'm told but what with war booklets requiring almost immediate backing up—and short runs besides—ink loaded with drier is inevitable.

For example the current book is 14,000 run on 42 x 55 Sulphite Bond (20 lb. substance) with a heavy black form (3 lbs. black per thousand sheets). We run two shifts which means quick drying or feed rolls marking badly. Close register prohibits easing too much tension on bottom feed rolls (we have one of the very first 42 x 58 stream feeder, Harris Presses).

Have you ever experienced a static condition as outlined and have you found any other remedy outside of slower speed and periodic airing of the feeder load? We have a neutralizer directly over feeder pile about 12 inches from load front but my theory is that this neutralizer helps little since static on a stream feeder

with its load tie-up cannot be removed. It's like trying to cut off current from a section of a charged line.

This slowing up of speed and lost time through pile airing really is a problem and I'm wondering if ours is an exceptional condition; if it is due to stream feeder, humidity, or just lack of knowledge. We have complete humidity control winter and summer with the Bahnson system but not refrigeration for summer cooling.

Emulsification on these faster presses is my other problem. Especially is this true on light forms and black ink. We use a high grade ink and combat waterlogging by adding either gloss varnish or a long varnish such as No. 3 or No. 5. Of course, water stops, full packing, fine dampener settings, etc. are all understood and we have tried various makes of composition rollers. Years ago on older presses with their slower speed we had little emulsification. Plate grain is a factor too, a fine grain is used for light forms and reverse for heavy forms. We use pH control with variations as to forms and certain inks.

Both of these problems have bobbed up periodically throughout

my thirty-three years in the business but I wonder how you have coped with them in your long experience.

Sincerely yours,  
Oscar Diehl.

Dear Mr. Diehl:

Replying to your letter, I would like to say that you are quite right about static being the greatest menace in the pressroom today. I have spent several years trying to solve this particular problem.

All of the available static eliminators seem to be inadequate. The gas flame, however, has proven itself the best. Working on this theory I have solved the problem to my satisfaction and I am sure a trial will prove well worth your while. It seems that one reason for the gas flame being successful is the fact that it takes oxygen from the air and concentrates it on to the sheet. Working on this theory I have found that the way to combat static is with additional moisture. To start with, if your plant is air-conditioned you probably strive to maintain a relative humidity of about 45 per cent. If the relative humidity can be raised to 60 per cent without causing too much disturbance in the stacks of paper on the press-

# PRESSROOM BUGABOOS

Two press authorities discuss by mail  
several troubles which keep bobbing up  
in even the best regulated pressrooms



**THEODORE MAKARIUS** Fuchs & Lang Mfg. Co., New York  
and  
**OSCAR DIEHL** Keller-Crescent Co., Evansville, Indiana

room floor at the time, you will encounter very little trouble due to static. Realizing this difficulty, I have solved the problem by raising the relative humidity in the immediate area of the press concerned. This is done by wetting the floor around the press with an ordinary sprinkling can using very hot water.

Your other problem of emulsification is one that seems to be very popular today because of the higher speeds of the presses and our changing from leather grained rollers to smooth rubber or composition rollers. If we are to use finer grain plates and run forms where the ink replacement on the rollers is small, we must resort to some grain rollers. This can be done without disturbing the press very much in the following manner:

On every press there are two rollers which may be replaced requiring little or no setting. These are the intermediate rollers between the drum and storage roller. On the Harris press these rollers fit into spring sockets and take only a few minutes to replace. Several grained rollers may be kept on hand, either grained leather or vulcanized oil or rubber with a grain, which the roller manu-

facturers will be glad to supply. It is very easy at the slightest sign of trouble due to emulsification to replace the smooth rollers with the grained rollers. It is understood, of course, that these rollers must be removed from the press when washing up and be cleaned by hand. This however, isn't difficult and doesn't handicap production. I feel this is far better than resorting to the use of leather grained form rollers, which some plants still use to combat this trouble.

Hoping this answers your questions, I am

Sincerely yours,  
Ted Makarius.

Dear Mr. Makarius:

Thanks for your interesting reply to my inquiries regarding static and emulsification.

You and others agree with me on speed and composition rollers. I also went through the leather grain roller days and from experience can't agree with you when you say it isn't difficult to clean these grain rollers. I think you'll recall it took about thirty minutes per roller going from dark blue to buff, or pink; and the hard work of sanding! I'm afraid

this solution wouldn't be very practical on today's modern big presses as it will mean an extra boy to help remove and replace these grain rollers. However, I know it's the best remedy.

In regard to static, you may have something in that gas flame, and we will look into this at once. Sprinkling the floor and raising room humidity we've done on numerous occasions with success.

The static condition I particularly had in mind was that caused by a heated-up feeder pile requiring winding every so often, particularly if the load was made far in advance of running. It's sort of a heating-up condition taking place as a result of oxidation as the ink dries. I've explained the exact condition in paragraph five of my first letter.

Again thanking you and assuring you I am at your service to reciprocate should I be of any help on press-room discussions.

Very truly yours,

Oscar Diehl.

P.S.: Perhaps it's just such problems as these we've gone into that makes our trade what it is—tough.

Dear Mr. Diehl:

In answer to your letter let me say that I agree with you about the difficulty in cleaning grained rollers. I did mean to stress the importance of having extra rollers on hand so that instead of delaying the press while washing these rollers, they could be replaced and the dirty rollers cleaned at an opportune time.

The static trouble you refer to caused by the heating up of the pile is most likely due to the kind and amount of drier used.

As for quoting me in any articles you write, that is perfectly satisfactory for I welcome criticism which is the worst that can be expected. Hoping to hear from you again, I am

Very truly yours,  
Ted Makarius.

Dear Mr. Makarius:

Your article in *Modern Lithography* dealing with pH control was discussed.  
(Continued on Page 71)

# Temperature Control In Film Storage and Developing Solutions

by

**JAMES T. CAMPBELL**

Pres., The Douthitt Corp., Detroit

**O**WING to the recent advances made in improved process films for use in the graphic arts industry, and the wide use of this material, the problem of correct temperatures for processing the film is important in the production of uniform quality negatives. All experienced workers realize the hazards of varying temperatures, which, when too high or too low, have their particular and sometimes drastic disadvantages in processing films.

Although the graphic arts industry has, in this modern medium, a method of producing high grade negatives faster, more accurately, and more economically than with the wet plate process, more careful attention should be given to every factor. Correct constant temperatures for developing and fixing solutions require particular attention.

The process of development is simply one of converting the invisible image caused by the action of light on the photographic material into a visible one that can be seen by the human eye. To do this five materials are needed:

1. The developing or reducing agent which darkens only those parts

of the image which have been exposed to the light. 2. The alkali which opens the pores of the gelatine to allow the developer to penetrate the emulsion easily. 3. The preservative which prevents too rapid oxidation by absorbing oxygen from the air. 4. The restrainer which aids in controlling the developing agent so that it will not affect the unexposed particles of silver. 5. The solvent which is water.

Hydroquinone, affected more by temperature than any other developing agent, is most generally used to produce dense, fine-grained images required for halftone and line negatives. Action is best at approximately 65 degrees F. A temperature slightly higher than 68 degrees F. will cause frilling and fogging; speed of development is increased; energy of the reducing agent becomes so strong that it reduces the silver salts on the entire surface of the emulsion and the dot becomes mushy. The solution oxidizes very rapidly at high temperatures and has a tendency to stain the gelatine. This causes a chemical fog and increases the printing time.

Partial decomposition also occurs

at high temperatures. The gelatin film will swell and soften, making it extremely difficult to handle, and increasing the drying time. At higher temperatures the preservative expends its energy very rapidly, causing the developing solution to age quickly and become unfit for use.

As the various agents in the developer are affected unfavorably by both higher and lower temperatures, any excessive deviation either way from 65 degrees F. will cause the developer to work unevenly and affect contrast. *It is imperative that temperatures do not increase or decrease to any great extent.* If the temperature is too low there is a hazard of under-development as the action is delayed. Such upsetting of the general development procedure makes it difficult to produce uniform negatives. The hydroquinone will precipitate when slightly below 60 degrees F., becoming practically inactive. Developing action will be needlessly long or cease entirely.

**T**HE fixing bath should be kept at the same temperature as the developer. If too warm, the acid will exert a stronger action and decompose the hypo into free sulphur. Trouble will be experienced with curling, hardening, shrinking, and stretching. This is particularly true of stripfilm.

Any modern temperature controlled sink should be equipped with both heating and cooling units. Thus, a basic developing time can be established. It will remain constant *at any season of the year*, for any number of photographers using the same sink.

**I**N the matter of film storage, it is a well-known fact that surfaces consisting of gelatine-silver emulsions gradually deteriorate with age. The emulsion of the plate, film or paper may become slower or faster (the speed generally increases to a certain point, then gradually decreases), and in most cases develops a fog, which may be present only at the edges, or it may be general over the entire surface.

This tendency is increased when gelatine negative materials are stored

**MODERN LITHOGRAPHY**

in hot dry places, or when they are subjected to decided changes in humidity and atmospheric temperature.

Without entering into too technical an explanation of the reason for this occurrence, it can be said that the silver salt held in suspension in the gelatine film is not inert—it is capable of acting on the gelatine, and this action is accelerated or intensified if the material is stored in hot stuffy darkrooms or chambers. Through this action of heat on the gelatine film, the silver salt gradually becomes affected; the interaction between the silver salt and the gelatine causes the film to become slightly veiled or fogged even without the action of light.

With such material it obviously is impossible to obtain the brilliancy of image which the material in its fresh state was capable of producing.

The only logical way to prevent this change in the photographic property of gelatine negative materials is to keep such materials under controlled conditions of storage. In these days of keen competition and high value of all photographic goods, the old way of piling boxes of material on shelves and subjecting the material to heat, cold, humidity, and the fumes of the shop may be poor economy.

Keeping of photomechanical films in storage at the proper temperature not only maintains the emulsion in proper condition, but the celluloid support of the film is kept in a proper state of flexibility—not prematurely dried out by heat while in storage. This drying out has a tendency to increase shrinkage in film, which, of course, influences the dimension of the image and tends to interfere with accurate register when films are used for color reproduction.

These difficulties in film developing and storage can be overcome, as mentioned previously, by maintaining strict control of the temperature of the developer, hypo and stop baths, and in the place where films or plates are stored. Automatically controlled equipment for these purposes is now in use in many commercial lithographic plants. ★ ★

## Describe British Mobile Map Plants

**M**AP plants on wheels—the military mobile lithographic units—have captured the interest of commercial lithographers, and the first official description and photographs of one of these U. S. Army operations were published last year (*ML* Apr., 1943, Pg. 49; May, 1943, Pg. 36).

The first information on the British counterpart of these Mobile Reproduction Trains was published in the February 17 issue of *British and Colonial Printer*, graphic arts magazine published in London. Following are excerpts from this British article.

Millions of maps are required—sectional maps of a county, street guides to a city, some large, others small, are all needed for the essential and effective prosecution of modern war operations.

Many of these maps are produced by mobile lithographic plants up and down the country and behind the lines, when the printing is often carried out under spartan conditions and always in a confined space.

Should the units be operating in the vicinity of the front line, the observations of the air force are immediately relayed to the mobile printing headquarters for the production of up-to-the-minute maps.

Today, in mobile Army Field Units, maps are drawn and printed by the offset lithographic process in the matter of a few hours, often under extremely hazardous conditions. From the time of the invasion of North Africa until the operations now proceeding in Italy, several hundred tons of specially produced maps have been used by the Allied Forces, and many of these were produced in mobile units which functioned in extremes of temperature. Many printers now in the Forces who in peace time were employed in the workshops of the country's leading lithographic plants, are engaged in mobile map printing work of a highly confidential and specialized nature.

The increasing use of maps in the present war, as compared with the meagre use of them in World War No. 1, has necessitated the design of elaborate equipment in the form of Diesel-powered lorries (trucks) specially constructed to house a compact but complete lithographic plant. Flat-bed machines were used in the last war, and speeds of production naturally com-

pare very unfavorably with the fast rotary presses operated today. Sunlight was then used for plate-making exposures, and press operators also had to handle the four mules which pulled the unit.

Present-day equipment in one of these mobile units includes a "Crabtree" demi automatic offset machine, complete with H.T.B. auto-feeder, printing down frames, a standard pattern whirler, and apparatus for drying plates, in addition to two lorries fitted up as a mobile camera and dark room. A water purification system supplies fresh water for processing plates and film.

While the two printing down frames, arc lamp, demi whirler and electric drying element are compressed into the barely adequate space provided by a three-ton Leyland lorry, the offset machine alone occupies the specially reinforced structure of a ten-ton Foden lorry. To accommodate such a weighty machine as well as its operators, and to give the latter room to carry out their duties efficiently, the lorry had to be constructed with side folding extensions that may be opened or shut as required. When the lorry is stationary, with sides extended by a few feet, there is a disproportionate overlap beyond the normal wheelbase, these extensions being stabilized by supports. For road movement the lorry can be restored to its normal shape by folding in the sides in a few minutes.

Although all the operations of a medium size lithographic plant may be carried out by means of the equipment available in a mobile unit, color printing is, of necessity, restricted to essentials. In the field, maps are rarely produced in more than three colors, and often only in one, on account of the time factor. Difficult weather conditions have always to be overcome. Changes of temperature and humidity may take place between the printing of one color and the next. Good register is sometimes difficult. However, in spite of the lack of any complicated apparatus for temperature and humidity control, surprisingly good results are obtained.

Mobile lithographic printing equipment can, of course, be used for other than cartographic purposes; Army orders of a domestic character often being printed, as well as miscellaneous bulletins, etc.

Mobile printing units were designed solely as a war-time expediency. Their practical adaptation to peace-time use would extend no farther than dismantling the various equipment and arranging for its disposal. ★ ★



# Notes on Lithography Today and Tomorrow

By WILLIAM HUEBNER

Huebner Laboratories

*Before the N. Y. Craftsmen's Club, March 16*

**A** BRIEF review of the present-day practice of printing in its three main branches can only be referred to in a general way in order to clarify the reason for suggesting the new steps which ought to be applied not in the immediate post-war period, but particularly after the postwar conversion to peacetime industry has been accomplished.

While it is true that conversion to war products has accelerated research and has accomplished in a short time results that would have taken years longer without the urgent needs set up by war, we should also remember as practical craftsmen, that postwar planning must be balanced by postwar performance.

Conversion to peacetime industry will be difficult enough with present equipment needing repairs, rehabilitation and replacement, to say nothing of capital or seed money needed to survive the conversion period without the disturbing prospects of having to take on new or revolutionary developments.

Worthwhile improvements in printing can be introduced only by practical performance with better quality at less cost after conclusive demonstrations in commercially going plants.

Thirty-eight years ago the offset press and the original photo image press plates were in the making. It has taken about 25 years for the

lithographic industry to convert to offset and forget about the old methods. Rotogravure was introduced over 30 years ago. It has grown, of course, but nothing compared to the growth of offset. When we discuss new methods of printing remember that it will be years before any new method can replace our present-day procedures, no matter how successfully they are applied.

We all know that printers in general, ask the question—"What is the printing process of the future going to be—offset or gravure?" If the letterpress printers were satisfied with their methods, they would not ask that question. It shows they are dissatisfied, just as the offset and the gravure printers are dissatisfied, because they know they do not possess the ultimate means of doing fine printing.

For instance, the offset printer up to now has not been able to print books economically because of the added cost of setting the text in hot metal, pulling impressions, making photo plates, before he can print them on the offset press.

Setting type on hot metal casting machines designed for typographic printing has been a great help to typographic printers. Attempts have been made to produce phototype setting machines. There is a definite need for Phototextype production of films from which press plates can be

made quickly and with superior quality for offset printing. Such a machine is being built in New York and will soon be completed. We will let results speak for themselves. The various functions have been tested so that all requirements for a practical Phototextype Machine Camera can be met in quality, in speed, in all varieties of type faces, and in any language, including quick accurate corrections for the production of the finest quality press plates to be printed by any needed process.

When this Phototextype Machine Camera is ready for the market, it will be used at first in the offset industry, and later on, when conditions permit, it will be applied to relief printing. It will be useful for gravure when the screening of the text is omitted. That can be done when the new methods of printing are applied.

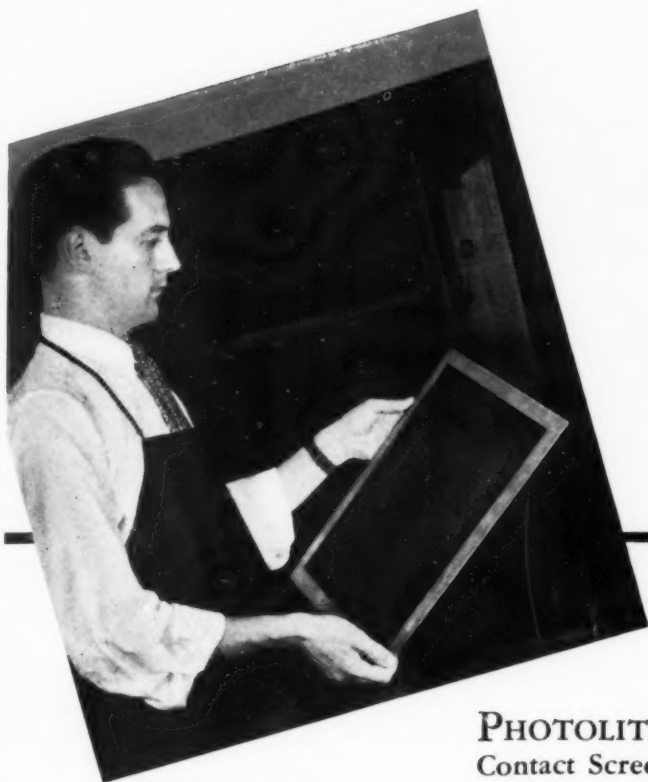
The procedures in reproducing color work will change after the postwar period. Better control of color rendition will be available to speed up the production of four color work which will be in more demand than ever. Color work will be directly photo composed to predetermined register on relief, gravure and photo film press plates. We fully expect to see four color reproductions made from color copy or direct color photography in less than seven hours time and we mean high grade color reproduction.

**A**ND so, whatever branch of printing is examined, shortcomings will be found which ought to be remedied. For instance, we do not need three different kinds of presses in order to print relief, flat plate or gravure processes. All processes should and can be printed on the same press. Print the job by the process best suited for its purposes.

We should eliminate make-ready time which is another costly procedure in printing and will have no place in future printing production methods comparable to direct methods used in other lines of industry. The limitations of paper surfaces need not be imposed on any method

*(Continued on Page 67)*

# Contact Screens



**READY FOR THE CAMERA**  
The Kodagraph Magenta Contact Screen over a sheet of Kodalith Ortho Film on a homemade vacuum holder.

**On their record, one or more Kodagraph Contact Screens should be working steadily in every photolithographic plant.**

PHOTOLITHOGRAPHERS equipped with Kodagraph Contact Screens are enthusiastic over the improvement in halftone reproduction they provide. Cameramen are readily turning out screen positives or negatives having finer and sharper detail. Tone reproduction is notably improved, particularly in the middletones and highlights. Contrast is easily controlled without affecting dot formation. The screens are simple and easy to use, but in no way are they a substitute for the skill of the operator in judging negative quality.

There are two distinct processes: the Kodagraph Orange Contact Screen for lithographic positives, and the Kodagraph Magenta Contact Screen for lithographic negatives. Each process has its own essential materials and supplies.

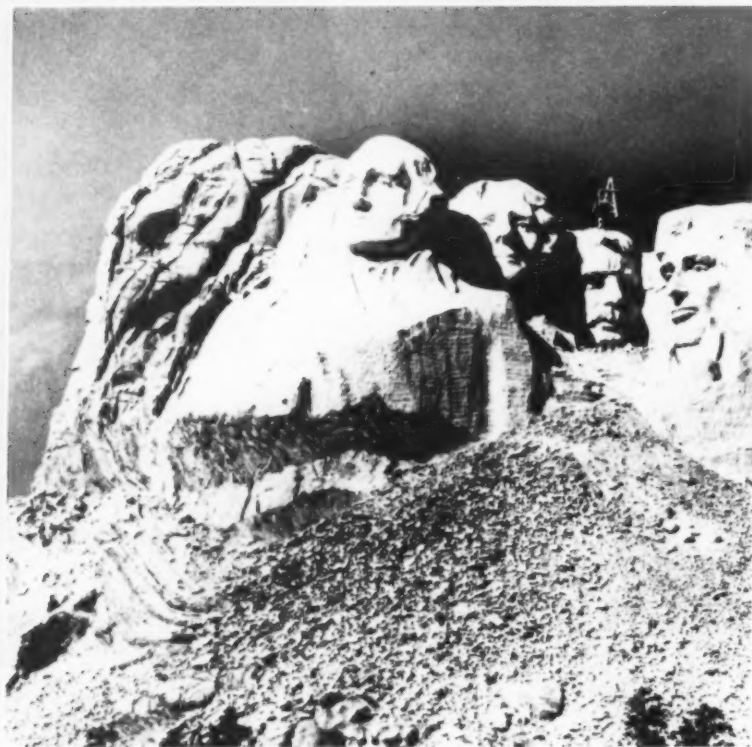
If you are not as yet profiting from this revolutionary advance in halftone making, take steps to do so at once. Arrange for a demonstration in your plant by a Kodak Graphic Arts technical representative, and consult your Kodak Graphic Arts dealer.



*Graphic Arts Sales Division*

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**BRYFOLD** — C2S Enamel; C2S Cover

**PLIABLE** — C2S Enamel; C2S Cover

**MILHAM** — C2S Enamel; \*C2S Offset Enamel;

\*C1S Litho (Gloss Ink)

**SUNRAY** — C2S Enamel; \*C1S Litho; \*C1S

Litho (Gloss Ink)

**BRYCOAT** — C2S Enamel

**FEATHERWEIGHT** — C2S Enamel

### UNCOATED

**IMPERIAL** — Bible; Manifold

**BRITISH OPAQUE**

**DE SOTO** — English Finish; Super; \*Litho Ma-

chine Finish; \*Litho Super; \*Litho Duplex

Super; \*Offset

**BRYANTIQUÉ** — Eggshell

**BRYTONE** — English Finish; Super; \*Litho Ma-

chine Finish; \*Litho Super

**ROCKET** — \*Offset

**SUNBEAM** — English Finish; Super; \*Litho Ma-

chine Finish; \*Litho Super; Eggshell

**BRYANTEER** — English Finish; Super; Eggshell

The availability of these grades is restricted,  
in some cases by war conditions.

\*Designed for top performance on offset presses.

Whether in government or in business, the prerequisites of leadership are experience — and imagination that spurs men to do better things.

These qualities are hard at work in the Bryant organization, meeting today's problems fairly — and at the same time developing better papers in our laboratory to fit your post-war plans.

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# Shop Talk

By I. H. Sayre

Technical Editor

**T**HE term "reduction" as used in this discussion means the weakening of a negative which has been over-exposed or over-developed and contains an image that is too dense. The chemical action involved in reduction is one of oxidation whereby the silver metal in the image is converted to a silver salt compound. In this form it is more soluble and can be washed away by water or other solutions. Reagents which will dissolve black metallic silver attack the gelatin also, therefore this conversion to a silver salt is necessary to keep the emulsion in usable condition.

When too much black metallic silver exists in the image, the print therefrom appears flat and without contrast. In the case of continuous tone negatives, this is caused from over-exposure; with line or halftone negatives over-development is the cause. Cause and result are the opposite in these types of negatives. All other factors remaining the same—

Continuous tone negatives: produce a flat weak print when over-exposed; produce a contrasty print when over-developed.

Halftone negatives: produce a flat weak print when over-developed; produce a contrasty print when over-exposed.

To adjust such negatives for normal and satisfactory printing, some

of the silver image must be carefully removed without injuring the negative. Since the metallic silver of the image resists the solvent action of all reagents except those which also destroy the gelatin, this is overcome by first converting part of the image into a silver salt which can be dissolved and washed away.

The conversion of part of the silver image into a soluble silver salt is done with certain oxidizing agents which react with the metal forming compounds such as Silver Ferrocyanide, Silver Chloride, etc. The salt is then dissolved to the desired extent, leaving only the desired amount of silver metal in the image. The rate of conversion varies with different oxidizing agents. Some attack the weaker or thin deposits of silver first, whereas others oxidize the denser parts before reacting with the "shadow detail." This difference in action is very desirable since it permits the photographer to choose a chemical most satisfactory for a particular negative trouble.

Correct diagnosis of the cause of a defective dense negative must therefore be made before intelligent use of the various reduction formulas is possible and the following points are given to help do this.

The selectivity in the action of the different oxidizing agents described

herein makes it desirable to separate them into three classes:

*Subtractive*, or surface cutting reducers, *Super-proportional* or flattening reducers, and *Proportional* reducers.

## Subtractive Reducers

This reducer is valuable for veiled foggy negatives. It attacks the weaker parts of the image, such as the shadow detail, proportionately more than the highlights or denser part. When there is a light fog all over the negatives which prevents proper printing, such a negative may be reduced in these dense shadows without appreciably affecting the density of the highlights by using a subtractive reducer. A subtractive or surface cutting reducer accomplishes this, increasing the contrast and brightening the whole negative. Potassium Ferricyanide and Potassium Permanganate are two common agents of this type.

Potassium Ferricyanide is dissolved in water and added to a Hypo solution (not a fixing bath). When the negative is treated with this solution, the Ferricyanide converts the black metallic silver into Silver Ferrocyanide which is dissolved by the Hypo and washed away.

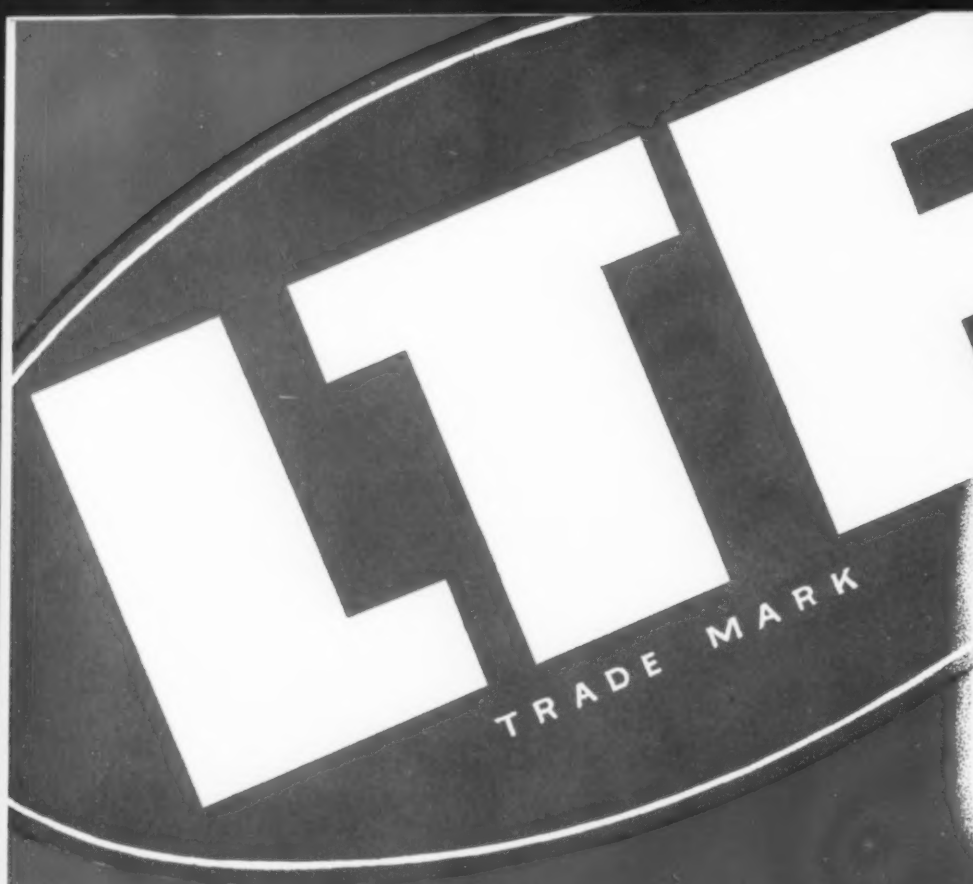
The vigor of the chemical action is dependent on the quantity of Potassium Ferricyanide added. The speed of action can be controlled therefore by using more or less Ferricyanide in proportion to Hypo in the mixture.

The bath rapidly decomposes when Hypo is added to the Ferricyanide, and therefore should not be mixed until just before using. Unless the Hypo is fresh, yellow stains result which are very difficult to remove. To stop the action of the reducing bath, the negative must be well washed under running water.

The following manufacturers of photographic supplies recommend slightly different formulas for "Farmer's Reducer," so-called for its author.

Formula of Defender Photo Supply Co. Inc.  
Solution No. 1

Water ..... 1 oz.  
Potassium Ferricyanide ..... 15 grains  
(Continued on Page 77)



No. 14  
for ZINC

No. 15  
for ALUMINUM

# FOUNTAIN ETCH

Modern methods in Lithography call for the use of  
PREPARED AND TESTED FOUNTAIN SOLUTIONS.

Use LTF Fountain Etches—They have proven themselves in hundreds of plants throughout the country—Their use assures:

- 1—Uniformity.
- 2—Protection from plate tinting and scumming.
- 3—More impressions from Zinc or Aluminum plates.
- 4—PH Control.
- 5—More efficient press operation.

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**STANDARDIZED  
CHEMICALS**

- No. 1—LTF Deep-Etch Coating solution
- No. 2—LTF Stopping-Out Shellac
- No. 3—LTF Deep-Etch Developer
- No. 4—LTF Deep Etching Solution for Zinc
- No. 5—LTF Deep Etching Solution for Aluminum
- No. 6—LTF Lithotine Concentrate
- No. 7—LTF Deep-Etch Lacquer
- No. 8—LTF Developing Ink
- No. 9—Lithotine Asphaltum
- No. 10—LTF Stabilized Albumin Solution
- No. 11—LTF Litho-Kleen Concentrate
- No. 12—LTF Plate Etch for Zinc
- No. 13—LTF Plate Etch for Aluminum
- No. 14—LTF Fountain Etch for Zinc
- No. 15—LTF Fountain Etch for Aluminum
- No. 16—LTF Stabilized Gum Solution
- Lithotine—

# THE WAY IT LOOKS IN



# Washington

**S**LIGHT easing up on materials all along the line, with the exception of paper, is a discernible trend in the nation's capital. However, since paper is the chief commodity causing worry to lithographers, there is little comfort to be had. Although further paper cuts, which last month appeared possible, have now been postponed for the second quarter at least, the urgency of paper conservation and for intensified efforts to increase the amounts of salvage paper remains.

Another change is reported due in the weight of offset paper to be manufactured, continuing the trend toward thinner papers, which means more printing surface for less pulp. Offset stock for multiple color lithography is to be reduced from 65 to 60 pounds, and for other work from 60 to 55 pounds, it is reported.

## House Magazines

Possible restrictions in the use of paper for house organs which are mushrooming all over the land, especially in war plants, have been revealed by the War Production Board. Methods of curtailment being discussed include: (a), the assignment of a paper quota based on the amount of paper used in 1943 or possibly a percentage of this amount, and (2), the setting up of a standard of paper stock which may be used for house publications, possibly requiring them to be printed on newsprint with a standardized page size.

## Extra Paper

A revised announcement of extra grants of paper made by WPB during

1943 to national magazines revealed that *Readers Digest* topped the list with 2,484 tons, with Crowell-Collier publications next with 1,809 tons.

## Conservation and Salvage

Paper men seem to agree that salvage efforts are falling far below potentialities and are urging lithographers to do all they can in salvaging their own waste stock and in lending their support to the salvage campaign in the advertising material they produce. Taking the lead in this campaign have been the Graphic Arts Victory Committee, and the Joint Committee on Government Relations of the Commercial Printing Industry. The importance of conservation and salvage and their relation to the ultimate supply of paper available to the commercial printing industry was again emphasized in an address by James F. Newcomb of the Joint Committee in Pittsburgh, March 22, before the meeting of the Graphic Arts Trade Association Executives.

"Don't make the mistake of thinking that no one will know if you use paper wastefully. Whenever I am in Washington, I am confronted at the War Production Board by examples from their chamber of horrors—a collection of examples of paper waste on commercial printing jobs," he declared.

Paperboard and container board remain highly critical.

## Paper for Duplicators

In reply to a question by the Graphic Arts Institute of Massachusetts regarding the quota of paper allowed for use by operators of

duplicating equipment, the following reply was obtained from the Printing and Publishing Division of the WPB. "Any method of producing printed matter, except by type-writer, is covered by Order L-241. Further study is being given to the types of operation you list, and we suggest that you keep in close touch with amendments to Order L-241 from now on."

This ruling was said to prevail whether the equipment was operated by a printer or lithographer in a commercial plant or elsewhere.

## Order L-317, Containers

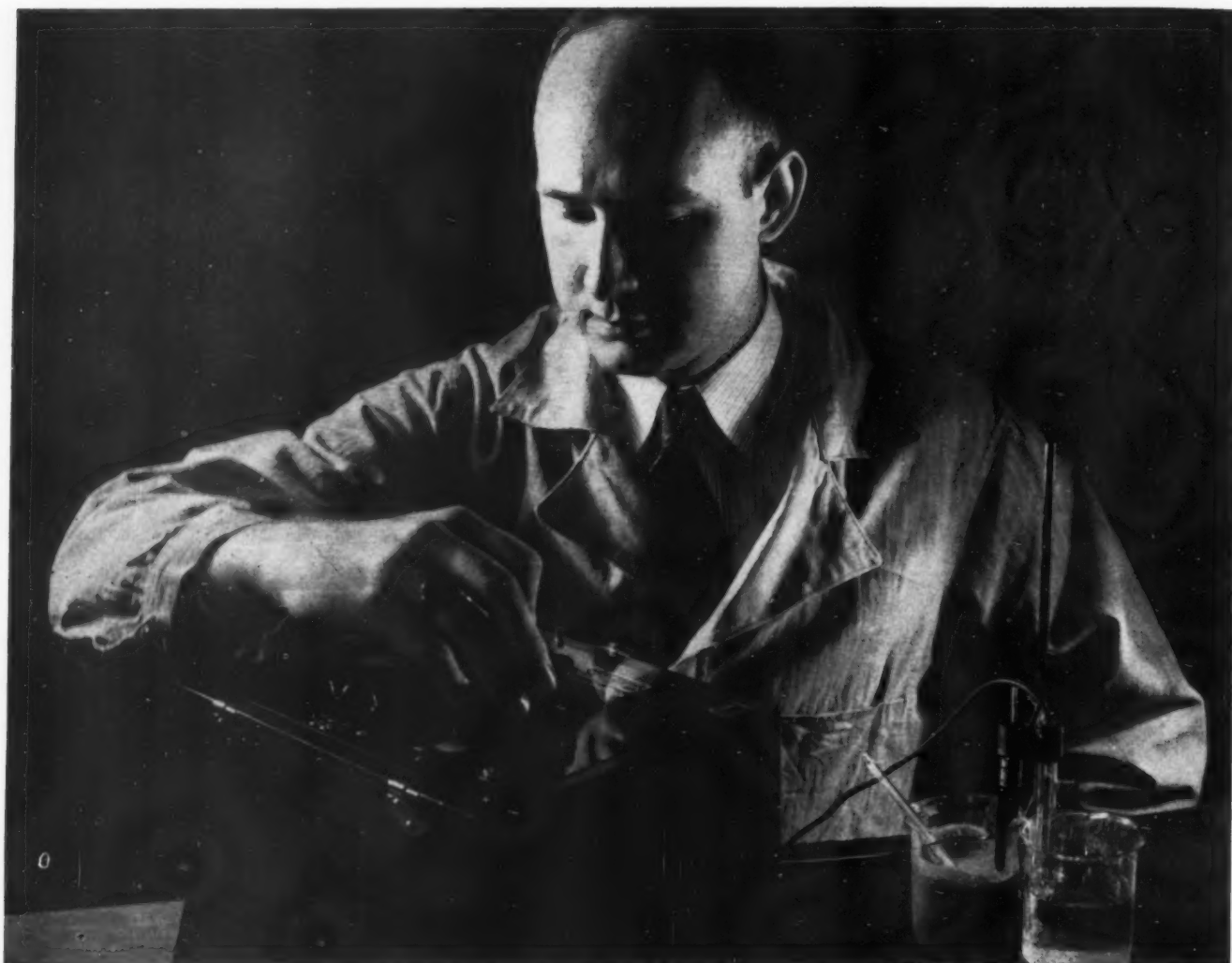
Order L-317, covering fibre shipping containers for advertising displays and some other products of lithographers, was amended effective April 1. The original order defined solid fibre as .060 or heavier. The amended order reads ".045 or heavier." Other changes affect stocks in hand or in transit. Added to the list of products which may not be shipped in new fibre shipping containers are "dispenser type of displays." Reductions in the quota percentages of certain products whose manufacture is restricted, are also included. Complete copies of the order are available from local WPB offices.

## Calendar Metal

The following announcement was made by United Typothetae of America regarding calendar tin: "We now have permission from the Appeals Section of the Iron and Steel Division of the War Production Board, to

(Continued on Page 67)





## Accurate to .000,000,000,001 of a gram

**The chemist** pictured here is measuring the quantities of silver ion concentration in the emulsion for Du Pont Photolith Film.

Variations of silver ion amounting to only a millionth of a millionth of a gram per liter have a profound effect upon the characteristics of film emulsions. Even these infinitesimal weights *must* be accurately determined.

This is another precision study conducted at the Du Pont Research and Control Laboratories. It is a routine operation important in the manufacture of all Du Pont Photolith Film, to assure you of uniform quality and dependable results at all times.

Check these important characteristics of Photolith Film: Clear safety base — non-halation backing — hard

surfaced emulsion — orthochromatic — high contrast — wide exposure latitude — high resolving power. It is quick drying — lies flat — engraves easily. Try Du Pont Photolith Film conveniently packaged in the exclusive "Lite-Lok" box.

E. I. du Pont de Nemours & Co. (Inc.), Photo Products Department, Wilmington 98, Delaware.

## DU PONT PHOTOLITH FILM



*Buy War Bonds  
and Stamps  
Every Month*

BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

## IN AND ABOUT THE TRADE

### Apprentice Day School is Launched in New York

**A** LONG range, well-planned program for meeting the shortage of skilled help in the lithographic industry has been launched in the New York metropolitan area with the opening in April of a day school for the training of employed apprentices. Classes are held during two two-hour periods in the afternoon, Tuesday, Wednesday and Thursday of each week, at the New York Trade School, where complete lithographic facilities are available. Although held in the same place, the day training program has no connection with the evening classes being held by the Lithographic Technical Foundation.

In order to get classes under way as early as possible an industry luncheon meeting was announced for Thursday, April 13, at the Biltmore Hotel. It is scheduled for 12:30 o'clock in Room 119. Some shops have been reluctant to release apprentices for four hours a week to receive this training under experienced instructors, and this meeting was planned to further acquaint the trade with the training program, it was said.

The program grew out of an industry-wide meeting held in New York last September, when a committee was appointed, known as the New York Advisory Committee on Lithographic Technical Education. The committee represents employers and the union.

Chairman of this group is H. H. Platt, Sackett & Wilhelms Lithographing Corp. Members include Karl Bachmeyer, John Blackburn, Justus Ebert, Theodore Makarius, William Steinruck, and Terrence Stephenson, all representing the Amalgamated Lithographers of America; and Victor E. Friedman, Crafton Graphic Co.; R. R. Haywood, Jr., R. R. Heywood Co.; George E. Loder, National

Process Co.; and George Schlegel, III, Schlegel Lithographing Corp. T. M. Flavell, Lithographers National Association, is secretary, and Dr. D. J. MacDonald, educational director of the Lithographic Technical Foundation, is committee consultant.

The plan is for the student body to be made up of apprentices now employed in the various branches of the industry. The tuition is paid equally by the student and his employer, while the employer pays the student his regular scale pay for the hours of school attendance.

Courses of study and the instructors are: photography (line) for art and photo apprentices, taught by Harold Lang of Printers Litho; platemaking for transferring and platemaking apprentices, taught by Frank Casino, of the ALA; offset press operating for press operator apprentices, taught by Lt. Frank S. Garcia, formerly of Monroe-Harford Co., who was recently honorably discharged from the Army. Other courses include press troubles, and stripping and opaquing. A class in color correcting, taught by

Adolph Boulnois of Lithographers Service, will be opened if there is sufficient demand.

Wartime conditions have made the program a difficult undertaking, Chairman Platt said, but through splendid cooperation it has been worked out. As the first classes were getting under way, it was not yet determined what the enrollment would be.

### Apply for Wage Increase

The Eastern Lithographers Association and the Amalgamated Lithographers of America, have applied jointly to the War Labor Board for an increase of two and one-half per cent in basic wages. The application is in accordance with the contract between the association and the union which calls for such an increase each time the cost of living index, compiled by the Federal Bureau of Labor Statistics, advances five points. This index advanced to 125 on December 15. However, the January 15 figure was 124.7 and February 15 was 124. The Eastern association voted unanimously to apply for the wage increase.

### Plans Nearing Completion for LNA Conference

**P**LANs for the Third War Problems Conference of the Lithographers National Association, which will be held in Chicago May 8, 9 and 10, are progressing and the complete program is to be announced during April. W. Floyd Maxwell, executive secretary, said. The meetings, which will be held again this year at the Edgewater Beach Hotel, will be open to all in the industry or in the supply trades, Mr. Maxwell said. The Bank Stationers Group of the LNA is to meet Sunday evening, May 7, on the eve of the opening day, for a dinner meeting. Exhibits of wartime lithography, showing both conservative and

non-conservative use of paper, are being arranged. Speakers on the three-day program will include, among others, representatives of the War Production Board, the War Labor Board, the Selective Service, and other agencies. A good deal of attention is to be given to the problems of re-adjustment following the war, with emphasis on marketing, Mr. Maxwell said. The Point of Purchase Advertising Institute, which traditionally has a luncheon meeting in connection with the LNA conference, will meet again this year, on May 9, according to Secretary Edward T. Sajous.

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*Graining Machine Linings*

**ON MRO RATED ORDERS**

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## Buckley, Dement, Chicago, Shuffles Company Setup

A MAJOR change involving the retirement of two top men, the forming of a new company and the carrying on of operations by employees of long standing, is to be effective May 1, with Buckley, Dement & Co., Chicago direct mail and lithographing firm, it was announced by Homer J. Buckley, president. The new company, which will carry on with present equipment and operations, and with the same personnel, will be known as the Buckley-Dement Advertising Corp., and has leased space at 705 West Jackson Blvd. The Buckley, Dement building at 1300 West Jackson Blvd. has been leased to the General Card Corp.

A new firm, the Buckley-Dement Co., is to be formed by Mr. Buckley with downtown offices, to be devoted exclusively to counseling advertisers and in developing direct mail campaigns. Mr. Buckley stated that the decision to make the changes came as a result of the desire of his two asso-

ciates to retire from active business. They are Merritt H. Dement, who is now 66 and who helped found the firm in 1905, and Herbert H. Marshall.

William J. Buckley, a brother of Homer J., who joined the firm in 1906, is to serve as chairman of the board of the new firm, and other executives will be Oscar E. Palmquist, Charles A. Smith, Edgar E. Flesher, J. S. Older, Mrs. Ruth Gaherty, H. R. Churchill, Andy Schmitz, and Edward J. Leahy. Homer J. Buckley indicated satisfaction with the announcement of the changes, pointing out that they would allow the other principals to retire, would relieve him of the responsibility of production and yet maintain his counseling and creative work, and would allow a group of employees "who have earned the right to succeed to the business" to carry on a going enterprise.

### Rockford Group Studies Offset

The Craftsmen's Club of Rockford, Ill., showed lively interest in lithography at its March meeting at Hotel Nelson, when Charles T. Buetner of the offset division of Sigmund Ullman Co. addressed the club. Mr. Buetner reviewed the development of offset lithography, and described present day methods, discussing two-color, four-color, and web presses. He showed a number of samples of lithography and predicted that following the war this process would be a strong competitor of letterpress and gravure in many kinds of work. The speaker has been in the offset field for over 25 years.

### Color Man Joins du Pont

The Photo Products Department, E. I. du Pont de Nemours & Co., has announced the appointment of J. A. Ball, a pioneer in the field of color photography, as consultant. Mr. Ball has been consulting engineer for McGraw Colorgraph Co. and Walt

Disney Productions, both of Burbank, Calif. Until 1939, he was vice-president and technical director of Technicolor Motion Picture Corp. Mr. Ball, who holds a number of patents

and is a contributor of articles on photographic processes to technical journals, will continue his residence on the west coast.

### McKenzie Heads Litho Div.

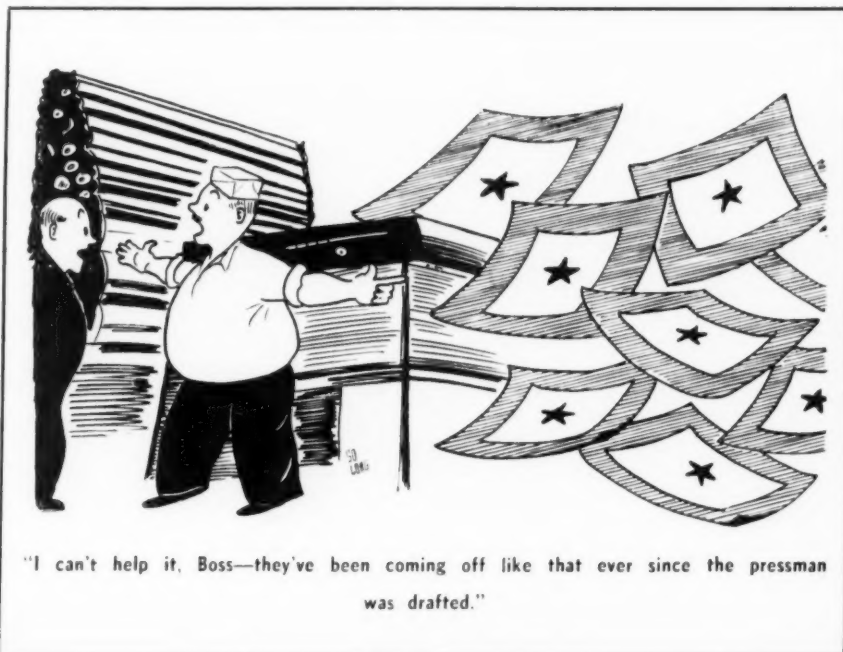
J. H. McKenzie has been appointed manager of the Enameling and Decorating Division of American Can Co., succeeding H. C. Hopkins, who became general manager of purchasing. The change was effective about April 1, and Mr. McKenzie, whose work includes supervision over some 43 metal lithographing plants of the company, is now located in the general offices in New York. He was formerly in the firm's research laboratories at Maywood, Ill.

### Urge Conservation Slogan

The slogan "Designed to Conserve Paper for the War Effort" to be placed on all lithography and printing where conservation measures are utilized has been suggested by the Joint Committee of the Commercial Printing Industry as a means of developing public understanding of the paper shortage.

### Forms Omaha Company

Frank E. Peck & Co., dealing in office systems, and supplies, has been formed in Omaha, Neb., by Frank E. Peck, formerly associated with the Peterson Lithographing Co., in that city.



# PHILLIPS & JACOBS

*Offers*

## FOTO-FIX

(CONCENTRATED ACID FIXING BATH)

1. Fixes film, plates, paper in *half the time* required with ordinary bath.
2. *Hardens emulsion* as well in 1/5th to 1/6th the time required with ordinary bath.
3. Fixes at least *twice as much* film or paper as an ordinary bath.
4. Is eliminated from film with *less washing*. Films are washed as well in 1/3rd the time required with ordinary bath.
5. Produces *clear film*, without haze, immediately after fixing.
6. Is *ready to use* with addition of water. No bother or time used in mixing.
7. Is economical. One gallon FOTO-FIX is equal in service life to ten gallons ordinary bath.

TRIAL QUANTITY (½ GALLON) AT \$1.50, AVAILABLE FROM  
YOUR GRAPHIC ARTS DEALER OR PHILLIPS & JACOBS

MANUFACTURING  
CHEMISTS

*Phillips & Jacobs*

622 RACE STREET  
PHILADELPHIA

## Renoir Reproduction Given by Coast Company

**C**ROCKER-UNION, San Francisco litho firm, has recently mailed out to its clients and friends the second of an annual gift—a piece of fine art lithography. This year the company chose the painting "Noirmoutier," by Pierre Auguste Renoir for reproduction, accompanying it with a finely lithographed folder giving the main facts of the famous painter's career.

"Noirmoutier," considered to be one of the finest of Renoir's landscape oils, is produced in seven colors. The screen is 133 line, and the work was done on a one-color press. The size is 17 x 21 inches.

The idea of this series of art prints produced in limited edition for distribution to customers of the firm and those interested in the fine arts, was conceived by Crocker-Union's president, S. S. Kauffman. The intention is, to reproduce a number of selected works of fine art, bringing out one each year. Mr. Kauffman believes that



This 9½ x 12½" two-color offset folder containing facts about the famous painter and his work was included.

by promoting fine arts, lithography in general is promoted.

The reception of this second in the series has been gratifying—almost surprisingly so, says Fred Keast, Crocker-Union sales executive.

## Directives to be Enforced, Chicagoans Hear

**G**OVERNMENT agencies have begun a campaign to enforce compliance with all wartime regulations affecting the lithographing and printing industry, members of the Chicago Lithographers Club learned at their March 23 meeting. Because of this, they were told by J. Norman Goddess, general counsel of the Graphic Arts Association of Illinois, Inc., and guest speaker at their meeting, it would be good common sense to get a clear understanding of all directives affecting their business and then comply fully with all details of every order.

Reviewing recent Washington regulations, Mr. Goddess stressed the paper situation and the limitations on paper consumption. The shipping container problem, he pointed out, is especially acute and enforcement officials, he told his hearers, can be expected to crack down hard on any violations.

The meeting, held for the first time in a new location—the Bismarck Hotel—brought out an unusually large crowd. Because of travel and rationing difficulties, the Chicago Club's traditional spring stag party at Joliet, Ill., has been abandoned, it was announced. A bowling match has, however, been arranged between the Chicagoans and the Milwaukee Litho Club for the evening of April 15. The affair will be held at Monte Carlo Recreation Parlors, Chicago, the proprietor of which, F. J. Arvey, was formerly a litho pressman. Carl Ericksen of the Gerlach-Barklow Co., Joliet, is captain of the Chicago team. A dinner and entertainment is also included on the evening's program.

### Chicagoans Back Drive

The current Red Cross drive for funds in Chicago is receiving outstanding cooperation from that city's

lithographers, according to George Benton, Chairman of the sub-committee charged with solicitation of the lithographic branch of the campaign's graphic arts division. Lithographers jumped in wholeheartedly at the start of the project, Mr. Benton reported and a very satisfactory final tally of contributions is expected. Alfred B. Geiger, president of the W. F. Hall Printing Co., is general chairman of the campaign among lithographers, printers and allied supplymen, whose quota is \$150,000.

### Forms Offset Company

An offset company was formed the latter part of March in Philadelphia by Theodore Thomason, with equipment including a 17 x 22 in. Webendorfer press, and camera and plate-making facilities. The shop is located at 1029 Race Street. Mr. Thomason is a former member of the Litho Club of Philadelphia, and was associated with E. C. Howe & Co., Philadelphia lithographers, several years ago.

### Form Milwaukee Company

A lithographing firm, the Allart Poster Corp., has been organized in Milwaukee recently with Alvin J. Wenninger, formerly of Gugler Lithographing Co., as president. Other principals are Belden T. Graves, associated with the Phillips Lithographing Co., and John G. Mueller. Equipment was expected to be installed during March.

### Join Chicago Craftsmen

Edward O. Southard, production manager of U. S. Printing & Lithographing Co.'s Chicago area plant at St. Charles, Ill., and Peter Paul, superintendent of Munson-Chicago, plate makers, were among a class of nine new members initiated into the Chicago Club of Printing House Craftsmen at their March 21 meeting.

### Poster Deadline is April 20

April 20 is the deadline for entries in the McCandlish Awards poster contest, sponsored annually by the McCandlish Lithograph Corp., Philadelphia. Prizes totaling \$1,000 are offered.





*The Sooner You Act Now  
The Sooner you'll get delivery...*

Project yourself into the inevitable "tomorrow" when new presses will be available again... If you have an ATF certified reservation with a *definite* priority number, you'll get delivery as quickly as the press you need is available and ready for delivery. The sooner you act NOW . . . the lower the priority number you'll get!

Ask your ATF Salesman TODAY for details and application on any of these presses:

LETTERPRESS

- STYLE C KELLY
- NO. 1 KELLY
- NO. 2 KELLY
- KELLY CLIPPER
- LITTLE GIANT

OFFSET

- LITTLE CHIEF
- CHIEF
- BIG CHIEF



# American Type Founders

Branches and Dealers in Principal Cities

MODERN LITHOGRAPHY

## Baltimore Litho Club Smashes Attendance Records

ALL attendance records were shattered, in spite of an unseasonal snow storm, when 104 members and guests of the Litho Club of Baltimore came out March 20, to hear A. P. Reynolds present an illustrated talk on the graining process and its importance to other operations in lithography. A large percentage of those attending was accounted for by a delegation of 47 from nearby Washington, many being from Army Map Service, and from other government lithographing plants.

Mr. Reynolds, who is chief chemist of Spaulding-Moss Co., Boston lithographers, stressed the importance of uniform graining of litho plates, and projected photomicrographs on a screen to show the various types of abrasives and the kinds of grain they produce. He declared that you can't produce a uniform grain with a non-uniform abrasive. In graining a plate, the object is two-fold, he said. You must remove the old image, and get the grain wanted. These two jobs should be accomplished together. The only thing more important than a grain that is uniform throughout the plate, is to have the plates grained

uniformly from day to day, he said. Abrasives, to produce best results must be tough, uniform, and have sharp cutting edges.

Commenting on the effects of worn

### Noted Explorer to Speak

Commander Donald B. MacMillan, USN, noted arctic explorer and lecturer in pre-war days, is to be the speaker at the next meeting of the Litho Club of Baltimore, to be held at the Emerson Hotel, Monday, April 17. Commander MacMillan is now in the hydrographic office of the Navy in Washington, where his knowledge of the arctic is employed in the production of maps and charts of the arctic regions. The meeting is scheduled for 6:30 p.m. This is the last of the season's regular meetings, but a social meeting is planned for May.

marbles, he said a graining table having 27 square feet of area will require 11,800  $\frac{5}{8}$ " marbles. When these marbles are worn down to  $\frac{1}{2}$ " in diameter, over 18,000 will be required he said. A  $\frac{1}{2}$ " marble weighs only about 50 per cent as much as a  $\frac{5}{8}$ " marble, he stated, pointing out how the weight of marbles on the table is changed as the marbles wear away. Changing the amount of water is not a good way to control the grain, he asserted.

### Racine Hears Offset Talk

R. V. Mitchell, president of the Harris-Seybold-Potter Co., spoke on "What's Ahead for Offset" before the Racine, Wisc., Club of Printing House Craftsmen, February 24th. Mr. Mitchell cited the growth of offset lithography over the last 20 years and stressed the opportunity for offset development in the future. The war, he said, had familiarized many commercial users of printing with advantages of the process.

### Young Lithos Retain Officers

Present officers and directors of the Young Lithographers Association of New York will remain in office for another year, the members decided at the annual meeting held at the Building Trades Club, March 8. These

officers are William Winship, Brett Lithographing Co., president; Sidney Voice, Consolidated Lithographing Corp., vice-president; Fred Hasbagen, National Process Co., secretary; and H. Monroe Selling, Zeese-Wilkinson Co., treasurer.

Feature of the March meeting was the showing of two *March of Time* films on war and postwar subjects. About 30 attended. No further meetings of the group are scheduled until fall unless a special meeting is announced through the club's regular channels.

### Issues Decal Check-Chart

The Meyercord Co., Chicago manufacturers of decalcomanias, is distributing an informative check-chart explaining to prospective industrial consumers how to select and specify

the right type of decal for 16 different sorts of surface materials. Published in file-folder form, the data assembled represents the results of wartime research which has developed decalcomanias that are resistant to acids, petroleum products, alcohol, abrasives, heat, cold, humidity and other factors, providing a product which can now be utilized in places heretofore considered impossible. Included in the chart is a list of 25 wartime uses for Meyercord decals on 34 types of combat equipment. Subsequent data will be added to the check-chart periodically, it was announced.

### Kansas City Firms Expand

Lanston Monotype Machine Company's Chicago office reports the recent sale of an M-H 3 photocomposing machine to Schooley Printing & Stationery Co., Kansas City, Mo., and a similar machine to Commercial Lithographing Co., same city. Lanston also supplied a new No. 5 M-H vertical coater to Harvey D. Zarwell, who recently opened an offset plate making shop at 223 N. Water Street, Milwaukee, Wis. A tremendous demand is growing for offset equipment of all types, J. H. Sweeney, manager of Lanston's Chicago office, reports. When present restrictions on manufacturers are removed, he anticipates that the offset industry will see a period of great expansion.

### Joins Craftsmen

Albert A. Teller, of Affiliated Lithographers, was among a group of new members at the March meeting of the New York Club of Printing House Craftsmen. Speaker of the meeting was William Huebner whose remarks are published elsewhere in this issue.

### Kort Heads Rightmire-Berg

George F. Kort has been named president of Rightmire-Berg Co., Chicago platemakers to the lithographic trade. Mr. Kort was a partner of the late Sigard Berg who died during February. No change in the conduct of the firm's business is contemplated, Mr. Kort said.

## *An Encyclopedia of Advertising Art*

**O**FTEN we are prone to forget that the alphabet began with pictures. Often we dismiss as a cliché the old Chinese proverb that "One picture is worth ten thousand words."

Whether you are selling Victory and a new peace for the world, or whether you are publicizing your good name—with some hint of new products to come when Victory is won—you may often forget that Art, coupled with words, is a vital link of communication with the minds of those you wish to reach—must reach—if you are to succeed.

Here is an issue of *Westvaco Inspirations for Printers* to revive that knowledge. To inspire by the inspiring efforts of others. Proof that Art is an inspirer of high morale, a champion of right, an arm for Victory . . . and a handmaiden of industry and commerce.

Right out of today, coupled with Art from the *Encyclopædia Britannica* of the latter half of the 18th century . . . this demonstration comes to you in seven dramatizations . . . side by side with a selected group of the colorful illustrations that abound in today's advertising . . . those graphic creations which are raising the standard of modern advertising to the Fine Arts Division.


There is *Nature*; there is *Architecture*, *Beauty*, *Agriculture*, *War*, *Literature*, *Music*. Seven avenues of approach to the minds of men . . . tapped with high purpose . . . each one an Inspiration in itself.

"The White Cliffs of Dover," by Elias Childe, here pictured, is the cover of the current issue of "*Westvaco Inspirations for Printers*" No. 146.

Look at this issue not as something to observe . . . but as something to enter. And something to do. For whatever has been done by printing on paper, that you can do . . . to your, and the world's eternal profit.

There is a copy waiting for you. It is procurable from your nearest Westvaco Distributor, or by writing or phoning to any one of the Company addresses.

*The Cover Artist:* Elias Childe was an indefatigable worker; and, when the technical excellence of his paintings is also considered, it may truly be said that his life work was, to say the least, remarkable. During his 50 years of labor—from 1798 until his death in 1848—he exhibited no fewer than 487 of his paintings at three contemporary showplaces of London, 59 at the Royal Academy from 1824 until 1848, 114 at the British Institution, and 314 at the Suffolk Gallery, besides an uncataloged number at the Water-Color Society of which he was a member. Connoisseurs today applaud his work; centuries hence his paintings will doubtless be treasured as types of an art long since passed away.

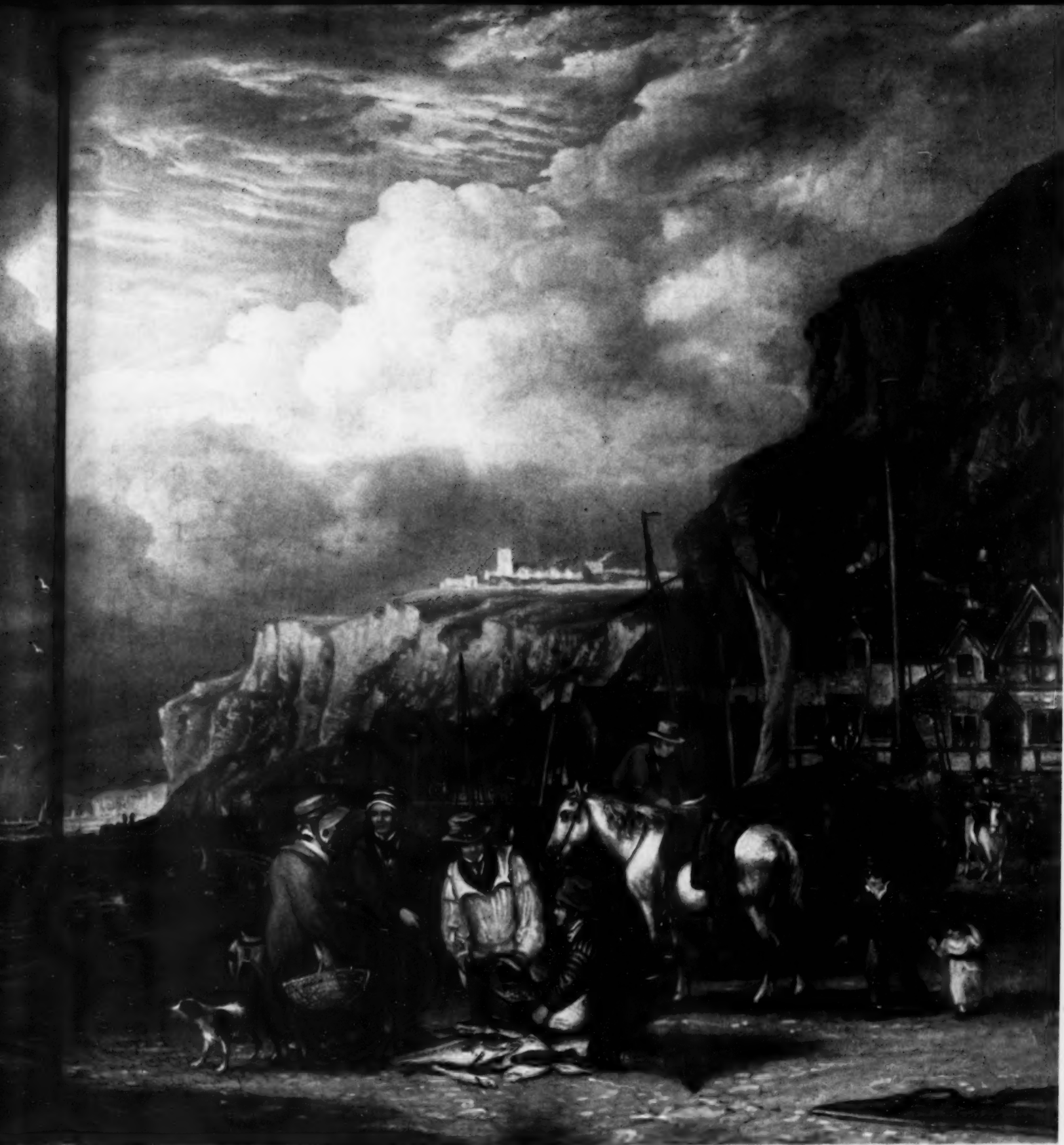


*Invest in Victory: Buy U.S. War Bonds*

New York: 230 Park Avenue  
Chicago: 35 E. Wacker Drive  
Philadelphia: Public Ledger Building  
San Francisco: 503 Market St.

*West Virginia Pulp and Paper Company*





White Cliffs of Dover, by Elias Childe  
From the painting in the  
Schoneman Galleries, Inc., New York

Westvaco *Inspirations for Printers 146*

# AN OPEN INVITATION

---

**W**OULD you like to receive, for a trial period without charge, the confidential bulletins which are sent to members of the National Association of Photo-Lithographers? These bulletins, which are sent out periodically deal with wages, government regulations, trade practices, costs, and specially prepared and compiled material of a nature not ordinarily published in the trade press.

The value of these bulletins has been emphasized by the increasing membership in the NAPL. This increase in membership is because of increased *service* to members.

You can try the bulletin service, at no cost to you, for a trial period, to acquaint you with the type of service offered by this aggressive organization. Membership in the NAPL is at the nominal charge of twenty-five dollars per press per year.

If you would like to receive these bulletins for a trial period or would like further information, write us on your business letterhead.

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

1776 BROADWAY

NEW YORK

## Export Labels to be Made in Commercial Shops

A PROGRAM to promote labels similar to that shown in the accompanying illustration for use on all private commercial export products has been announced by the Overseas Branch of the Office of War Information, and exporters are urged to obtain these labels from their lithographer or printer.

While the sample label shown here is a die-cut product, in two colors, the same design can be worked into other types of labels, the OWI said. An OWI announcement describes the program as follows:

This labeling program encompasses two distinct operations. One for Lend-Lease and Government-owned supplies, and a second for private commercial exports. They should not be confused. Labels for Lend-Lease and Government-owned supplies display the American flag. For private commercial export shipments, it is contrary to flag etiquette to use the flag. Therefore, only the flag motif is employed.

### How the Labels Can Be Used

1. Although the circular die-cut label, as illustrated here, is considered most practical, it can be converted into any shape, to fit a specific area.
2. It can be square cut or gummed.
3. It can be a separate label or worked in as part of the layout of the product label.
4. The manufacturer's trade mark can be incorporated within the label itself.
5. It can be plain and slipped in bolts of textiles or rolls of paper, or folded within the wrapping of a product.
6. All products in parcels, packages and containers, going abroad, should bear this standard identification symbol, either in the form of a label, or decalcomania.

It is hoped that manufacturers will use their knowledge of the use of labels in developing other approaches or methods that will stimulate continued use of this identification symbol.

### How to Obtain Labels

OWI does not handle the purchase of labels. This is left to the manufacturer to secure them from a printer of his own choice. Any label manufacturer can reproduce these labels. Should art work be required, OWI will gladly supply it without charge.

The following sizes are the most practical for general use: 9 in., 4½ in., 2¼ in., 1½ in. and ¾ in.

### Language Labels

It is recommended that manufacturers use labels in the language of



the consignee. For this purpose, OWI has prepared translations for use in the following countries:

Portuguese—for Portugal and possessions.

Spanish—for Spain and possessions.

Spanish-Arabic—for Spanish Morocco.

French-Arabic—for Syria.

Arabic—for North Africa, Transjordan, Iraq.

Persian—for Iran.

English-Arabic—for Egypt, Aden.

Swedish—for Sweden.

French-German—for Switzerland.

Turkish—for Turkey.

Hebrew-Arabic-English—for Palestine.

Icelandic—for Iceland.

OWI will furnish the art work without charge for any of these language translations or for any other language required. There is no objection, however, if manufacturers wish to use the English language exclusively.

The use of these labels is voluntary. OWI Overseas merely encourages exporters to use an approved basic design on their export shipments.

### Plan Wagner Testimonial

An overflow gathering is expected when the Boston Club of Printing House Craftsmen tenders Frank E. Wagner, recently retired head of the S. D. Warren Co. Printing-Testing Plant at Cumberland Mills, Me., a testimonial dinner at the Hotel Statler in Boston, on Monday evening, April 17.

General chairman Frank Galvin of Royal Electrotpe Co. has announced an honorary committee composed of officers and past officers of the International Assn. of Printing House Craftsmen.

Serving on the Boston Committee

with Chairman Galvin are: Gordon Ruiter, Forbes Lithograph Mfg. Co., Harry Faunce, Rumford Press; G. Gehman Taylor, of Rand Avery-Gordon Taylor; Philip J. McAteer, New England Electrotpe; Jack Power, International Printing Ink; John Donahue, Sinclair & Valentine Co.; Patrick J. Smith, Roxbury Memorial High; John B. Curry, Machine Composition; Paul Jones, Storrs & Bement, Fred Williams, Boston Mailing, and Shepley Cleaves, New England Printer and Publisher.

The testimonial will honor the services which Frank E. Wagner has rendered the printing industry over a period of some 27 years, during which time he traveled some 50,000 miles a year addressing Craftsmen's clubs on technical problems involving the affinity of inks for paper.

### L. A. Firm Promotes Greetings

Buza-Cardozo, Los Angeles greeting card firm, is launching a broad advertising campaign in national publications to promote its products, and to try to level out sales of cards to avoid seasonal slumps. Buza-Cardozo cards were recently promoted through advertising in *This Week*, *American Weekly* and *Sunset*, and the enlarged campaign is expected to break this summer. Some of the ads will capitalize on the Hollywood scene of California sunshine, radio, gag writers, movie stars, palm trees, and snow-capped mountains, pointing out that all these things added together equal "studio type greeting cards." To meet the restrictions on the amount of paper allowed for greeting cards, the firm's cards have been redesigned to conserve paper.

### Merten Heads Ohio Group

W. H. Merten, Strobridge Lithographing Co., Cincinnati, was elected president of the Miami Valley Lithographers Association recently. John E. Hennegan was named vice-president; and William T. Bossard, treasurer. Members of the executive committee include C. Fred Burtanger, Oliver T. Jenkins, Oliver W. Perin, Thomas Stevenson, Jr., and O. H. F. Weissman.





## WHISPERING CAMPAIGNS---AND ROLLERS

A suggestion of the shortage of any product during war time brings on a buying rush that often results in needless purchases and waste---or perhaps rationing.

The purpose of rationing is to proportionate goods in order that the military needs are met first, and what is left, be distributed fairly.

PRINTING and LITHOGRAPHING have been declared NECESSARY to the war effort. They have certain allowances and ratings that at this time insure you the roll-

ers you need---the KIND you have found in the past to perform most efficiently. This preference will continue.

You can get the rollers you prefer from Bingham---Synthetic Rubber, Natural Rubber, Vulcanized Oil, or Composition. These will be fresh, live rollers---not OVER-AGE before you put them on the press.

When you are ready to make your roller changes for the season, order the kind of rollers you want---from Bingham. There is a representative convenient to you.

## SAM'L BINGHAM'S SON MFG. CO.

Roller Makers Since 1847

**Manufacturers of Printers' and Litho-Offset Rollers**

**CHICAGO**

Atlanta  
Cleveland  
Dallas

Des Moines  
Detroit  
Houston

Indianapolis  
Kalamazoo  
Kansas City

Minneapolis  
Nashville  
Oklahoma City

Pittsburgh  
St. Louis  
Springfield, O.

### Craftsmen to Meet at Niagara

Technical problems encountered by the graphic arts industries in wartime, will feature the annual convention of the International Association of Printing House Craftsmen planned for July 24, 25, and 26. The affair will be held at the General Brock Hotel, Niagara Falls, Ontario, just across the bridge from Niagara Falls, N. Y. This site, because it is not near military encampments nor centers of munitions production, is in position to provide accommodations it was said.

In addition to studying the technological conditions and limitations on materials which change so rapidly, it is also planned to set up a comprehensive post-war planning program and seek ways and means to provide employment for men returning from service. Leaders stated that there exists no substitute for round-table discussion and the give-and-take of debate on the floor.

Since there is no local club in Niagara Falls, the coming convention will be operated by the International organization of the Craftsmen. This will be the first time that an annual convention has been so conducted. Canadians are forbidden by the Dominion government to take enough cash out of their country to comfortably attend a convention in "the States." The location now will make it possible for Canadian Craftsmen to attend. The prevailing rate of exchange is favorable for U. S. money.

Responsibility for planning the technical program has been assigned to Douglas C. McMurtrie, international educational commission chairman and announcements of speakers and features will be made as rapidly as possible.

### Ansco Gets "E" Award

Ansco, manufacturer of lithographic film and other photographic products, was awarded the Army-Navy "E" in ceremonies at the company's plant at Binghamton, N. Y., March 27. Since Pearl Harbor approximately 75 per cent of Ansco's production has been for the government and essential war industries. Its camera plant is now engaged 100 per

cent in the manufacture of precision instruments for the Army Air Forces and the Navy. Ansco war products include sextants, and a driftmeter which automatically computes wind drift and is used by aerial navigators. Ansco Color Film, the first such film which can be developed in the field, is also being used by the armed services.

### N. Y. Club Sees War Films

Four official war films, not released for showing to the general public, were shown to over 100 members and guests of the New York

### Next Meeting April 26

"Plastics Today and Tomorrow" is the subject of a talk scheduled for the meeting of the New York Litho Club, Wednesday April 26 at the Building Trades Club. The speaker is to be Edward J. Pechin, advertising manager of the plastics department of E. I. duPont de Nemours & Co. He is also a member of the Society of the Plastics Industry, and vice-president of the Industrial Marketers of New Jersey. The meeting is scheduled for 6:30 p.m.

Litho Club at its March 22 meeting at the Building Trades Club. Titles of the films, most of which showed actual battle scenes in sound, were "Baptism of Fire," "Life Line," "Kill or Be Killed," and "No. 3 Communique."

The films followed the regular dinner meeting of the club, and William Carey, Sweeney Lithograph Co., club president, presided. The motion picture equipment was furnished by Eastman Kodak Co.

New members introduced to the club included:

Edward A. Zoeller, American Colortype Co.; John J. Birgel, Henry F. Birgel & Sons; John Marucci, Sr., and Milton A. Grouleff, Kipe Offset Process Co.

### Currier & Ives Popular

Currier & Ives, the book of prints of the famous 19th century lithographers, published by Doubleday, Doran, and distributed through the Book of the Month Club, is proving a popular book. Another reprint of 25,000 was recently reported, bringing the total print order to over 450,000 copies. The full page, 9 x 12 in. illustrations, many of four colors, are lithographed by Zeese-Wilkinson Co., Long Island City, N. Y.

### Employee Magazines Popular

Employee magazines are one of the most popular mediums used to tell employees about their company according to a survey of over 500 companies just completed by the Metropolitan Life Insurance Co. The whole subject of employee relations is reviewed and samples of printed material used by various companies in their program is contained in a booklet "Telling Employees About Their Company." This booklet is available from the Policyholders Service Bureau of the company, 1 Madison Ave., New York 10.

### Issue Another Clip Sheet

Another in the series of clip sheets has been issued by the Graphic Arts Victory Committee, containing war message copy and illustrations for use in all kinds of lithographed and printed promotion. The clip sheet contains a coupon which may be used to obtain photographs, and complete information on any of the current government campaigns which can be tied in with printed material of local customers. Headquarters of the GAVC are at 17 East 42nd Street, New York 17.

### Forms Havana Club

Harvey Glover, Sweeney Lithograph Co., Belleville, N. J., president of the International Association of Printing House Craftsmen, returned March 13 from Havana, Cuba, where he issued a charter for a new local craftsmen's club. Mr. Glover is currently addressing meetings of craftsmen in many parts of the U. S., one of the most recent being March 21 in Chicago.

### Joplin Joins R. H. Donnelley

William A. Joplin, of Keller-Crescent Co., Evansville, Ind., lithographers and printers, joined the direct mail division of Reuben H. Donnelley Corp., New York, April 1.

### Joins Brown & Bigelow

S. W. Rindfleisch has recently joined Brown & Bigelow, St. Paul, Minn., in an executive capacity. He was formerly a sales executive in another field.



**W**HAT does he mean by "easy to handle . . . hard to beat"?

Just what any good camera operator would mean when he described a high quality film that—

- has high contrast and resolving power.
- has a backing which disappears quickly in processing solutions and leaves no afterstain.
- lies flat when it dries.
- has an effective anti-halation coating.
- has wide developing latitude.

Try Ansco Reprolith Films today . . . and see for yourself!



**Ansco, Binghamton, New York.** A Division of General Aniline & Film Corporation.

# Ansco

(FORMERLY AGFA ANSCO)

## REPROLITH FILMS

"Easy to handle—hard to beat"



**Warning to PRINTING BUYERS!**  
*PAPER SHORTAGE  
NOW CRITICAL*

This five column by 14" ad was inserted in the St. Louis Post-Dispatch, March 28, by the Associated Printers and Lithographers of St. Louis, and is the first of a series planned to aid in paper conservation. Reproductions of the ad were sent to Ad Club and C of C members and business executives, and were supplied to graphic arts concerns for distribution to buyers of printing and lithography. Fred E. Winsor, executive vice-president of the association reports.

Six new member firms were added to the Eastern Lithographers Association at its meeting March 13 at the Hotel Commodore, New York. The new members and their representatives are: L. J. Brodney, Colorgraphic Offset Co., Inc.; Alfred P. Neff, Neff Lithographing Co., Inc.; F. M. Giles, Michaelson Lithograph Co.; Inocencio Esteban, Lithographers Service Co.; Dante V. Mazzocco, Eureka Photo Offset Engraving, Inc.; and D. Proko, Lithographic Plate Graining Co. of America, Inc. A feature of the meeting was the report of the labor committee made by its chairman, James L. Murphy of Consolidated Lithographing Corp.

Patents vested in the Alien Property Custodian, which are available on license to American firms, include several hundred in the fields of printing, photography, label pasting and stationery. Lists of these patents are available for 10c, except for the photography list which is 25c, from the Office of Alien Property Custodian.

Roy E. Hanson of Milprint, Inc.'s, Milwaukee, Wisc., sales staff, was scheduled to speak at the spring meeting of the Associated Bakers of Illinois, in Peoria, Ill., April 17. Participating in a forum discussion of "What's Ahead," Mr. Hanson was to outline developments in packaging which will affect sales of bakery products in the future.

Paper deliveries for the remainder of 1944 probably will be no faster than in 1943, according to a statement made to paper merchants recently by the Strathmore Paper Co. This was brought out in the current issue of "Headline News," an information sheet about the paper situation pub-

Ben R. Hamilton, sales manager of the Democrat Printing & Lithographing Co., Little Rock, Ark., recently addressed the Kiwanis Club in that city. His subject was "Labeling Arkansas."

Are you properly  
emphasizing the  
**SAVINGS FEATURE**  
OF YOUR PLANT'S PAYROLL  
SAVINGS PLAN?



**W**ITH the war swinging into its tensest phase, now's the time to emphasize over and over again the *savings* feature of your Payroll Savings Plan. To press home to all your people the need of building up their savings—the need of building up their savings not only in wartime but also in the years directly after the war. To point out that a bond cashed before its full maturity is a bond killed before it has given its fullest service to its

owner—or to his country!

Buying War Bonds, holding War Bonds, and keeping wartime savings mounting—all are absolutely vital. But no one of these is enough by itself. The *savings habit* must be carried over into the years of reconstruction which will follow the war. For if, at war's end, we have 'flash-in-the-pan' spending, *everybody loses*. The spender loses, you lose, and the country loses! While a working public, convinced of

the value of continued, planned saving, is the soundest possible foundation for private enterprise of every sort.

We call these bonds War Bonds—and with their aid we will win this war at the earliest possible moment! But they're Peace Bonds, too—and, rightly used, they will win for their holders, *and for all of us*, a happy and prosperous place in the years of peace to come. WAR BONDS to Have and to Hold.

*The Treasury Department acknowledges with appreciation the publication of this message by*

**MODERN LITHOGRAPHY**

★ **Let's All Back**  
★ **the Attack...**  
★ **with War Bonds!**

*This is an official U. S. Treasury advertisement—prepared under auspices of Treasury Department and War Advertising Council*

#### Organize Zarwell Firm

The firm of H. D. Zarwell, offset plate makers, has recently been formed at 223 North Water Street, Milwaukee 2, by Harvey D. Zarwell, who recently sold his interest in the Lithoplate Co., that city. Mr. Zarwell had helped organize the latter firm in 1932, and served as salesman, technician, and in general management. He entered lithographic work with a Milwaukee firm 18 years ago and after becoming a litho artist, later went into selling and management.

The new company, which is already operating, will produce deep etch, color plates, dot etch work and photo-composed plates for the trade. Equipment in the plant includes a 36 in. camera, 72 in. photo-composer, 68 in. vacuum frame with two smaller ones, 30 x 36 in. power proving press, and auxiliary equipment. It occupies 3200 square feet of floor space.

#### Foto-Lith Buys Eagle Co.

Harry E. Brinkman, president of Foto-Lith, Inc., Cincinnati, late in March announced the purchase by his firm of the building and equipment of the Cincinnati-Eagle Lithographing Co. The two-story building of the Eagle company is 85 x 103 ft. and is located at Findlay and Providence Streets. It contains 20,000 square feet of floor space. Mr. Brinkman told *Modern Lithography* that the Eagle company will be combined with Foto-Lith into one operation, and that part of the equipment in the Eagle plant will be moved into the present Foto-Lith plant located at 38 West McMicken Avenue. Mr. Brinkman joined the Foto-Lith company in 1933, and became president and owner of it in 1940. He is also president of the National Association of Photo-Lithographers.

#### Wakeman to Fox River

Arthur G. Wakeman, former director of the Pulp and Paper Division of the War Production Board, and more recently assistant director of the Forest Products Bureau, resigned April 1, to return to his former position with Fox River Paper Corp., Appleton, Wis. He had been with WPB since February, 1942.

APRIL, 1944

## About BULLETS AND PAPER

In the army bullets are bought to be used up — yet the army insists first on quality — not price. Cheap bullets that jam in the tommy-gun slow up the attack — smooth working ammunition speeds the battle. In business paper is also bought to be used — yet too often paper is bought on price — not quality. Cheap paper can “jam” the smoothness of your office routine — can slow the battle of production.

Get faster action in all your paper work with Parsons high grade papers, made with strong cotton fibers. For nearly a century these papers have been helping American business get its “paper work” done faster, and better.

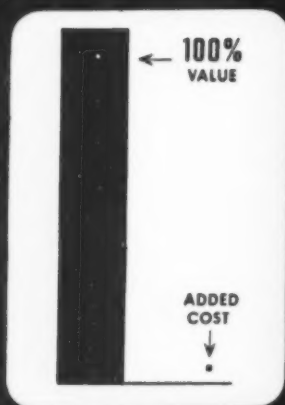
Write today for Demonstration Folder of these superior business papers and see how they can be used in your business.

PARSONS PAPER COMPANY, HOLYOKE, MASS.

*Parsons Paper*  
*Specialized for Modern Business*



## SO MUCH FOR SO LITTLE



PAPERS made from 100% new white cotton cuttings save critical war materials. Yet the most durable L. L. Brown ledgers\*, instead of ordinary papers, add less than 1% to accounting costs, yet guarantee 100% protection—utmost resistance to wear. Ask your printer for samples of the following:

### L.L. BROWN LEDGER PAPERS

\*L. L. BROWN'S LINEN LEDGER  
100% New White Linen & Cotton Fibres

\*ADVANCE LINEN LEDGER  
100% New White Cotton Fibres

FORWARD LINEN LEDGER  
100% New Cotton Fibres

L. L. BROWN'S FINE  
85% New Cotton Fibres

GREYLOCK LINEN LEDGER  
75% New Cotton Fibres

ESCORT LEDGER & MACHINE POSTING  
50% New Cotton Fibres

\*Permanent Papers

L. L. BROWN PAPER CO.  
ADAMS, MASS.



### 50 Books Include Offset

Seven books produced by lithography, and a number of others having lithographed illustrations or jackets, are included in the Fifty Books of the Year, the yearly selection compiled and honored by the American Institute of Graphic Arts. The 50 books were chosen by a jury from 435 books entered by publishers and printers. Titles of books produced by offset lithography and the company producing them are:

*Cinderella*, Affiliated Lithographers, New York.

*Don't Count Your Chicks*, George H. Miller, New York.

*Sing for Christmas*, Duenewald Printing Corp., New York.

*Many Moons*, The Polygraphic Co. of America, New York.

*Puppies for Keeps*, Pace Press, New York.

*The Lively Little Rabbit*, Western Printing & Lithographing Co., Racine, Wis.

*Homer Price*, Duenewald Printing Corp., New York.

A number of the books contained illustrations in the collotype process by Meriden Gravure Co., Meriden, Conn. End pieces, illustrations and jackets on other books included lithography by R. R. Donnelley & Sons, Chicago; Ullman Co., New York; Boston Offset Co., Boston, and Rheel Litho Co., New York. The catalog describing the books was lithographed by National Process Co., New York, on Warren's Cumberland offset stock.

### New York Drive Nears Top

The Red Cross drive among lithographers and allied lithographing trades in New York City (Manhattan), under the chairmanship of George E. Loder, National Process Co., on March 31 had almost reached its quota of \$17,000. Confidence that the goal would be surpassed was expressed by drive leaders. The committee included: Ralph M. Duenewald, Duenewald Printing Corp.; A. T. Enos, Stearns & Beale; A. J. Fay, National Process Co.; Michael Gruenerwald, General Offset Company; R. R. Heywood, Jr., R. R.

Heywood Co.; George Higgins, Denison & Son; Gordon McGarry, National Music Printers & Allied Trades Association; H. C. Newell, Oberly & Newell; Joseph P. Nicolosi, Lithographers & Printers Finishers Association; Angelo Pustorino, Daniel Murphy & Co.; Lee Rosenstadt, Ardlee Service; A. Schulthies, Terminal Photo Offset; G. Wedeking, American Label Co.; Edward Wilson, New York Litho Corporation, and Victor Friedmann, Crafton Graphic Co.

### Philadelphians Study Screens

The Eastman contact screens were discussed before the Litho Club of Philadelphia, March 27, by John Grote, Boston representative of the Eastman Kodak Co. Mr. Grote was

### Phila. Club Meets April 24

A presentation of a full length war film by Eastman Kodak Co. is to be the feature of the next meeting of the Litho Club of Philadelphia, Monday, April 24, William J. Stevens, Edward Stern & Co., club vice-president, announced. The meeting will be held at the Stephen Girard Hotel at 6:30 p.m. The film shows battle pictures from all fronts. The club will have another regular meeting in May, with the annual outing or fun night scheduled for June, Mr. Stevens said.

substituting for William H. Falconer, New York Eastman manager, who was originally scheduled to speak, but who was detained in New Orleans on war business. Mr. Grote, who was introduced by Joseph Werner, Eastman's Philadelphia manager, discussed the orange contact screen which is used for making deep etch plates, and the magenta screen used for albumen plates. The talk was illustrated with picture slides. The meeting was held in the Stephen Girard Hotel, and was attended by about 80 members and guests.

### Announce Paper Cement

A transparent cement for paper which it is claimed will not discolor and can be rubbed off, has been announced by So-Lo Works, Inc., Loveland, Ohio. It may be used like rubber cement but is available without priority, the statement said. Readers of MODERN LITHOGRAPHY may obtain information from the So-Lo firm.

MODERN LITHOGRAPHY

## Army Asks Lithographed Cans

All paper labels are to be eliminated from cans of food packed for the government, effective immediately, and labels lithographed directly on the cans will be required.

This decision was reached when it was discovered that the labels occasionally come off the cans under the hard handling that canned goods sometimes must undergo in transit to posts, camps and stations in the U. S. and to the fighting fronts. Also, it was found that even if the labels did not come off, they held moisture and stimulated rusting and corrosion of the metal containers with possible damage to the contents, the War Department said.

Instead of paper labels, the Quartermaster Corps will require packers to print or lithograph the cans with statements as to contents, and if facilities are available, to use a rust-inhibiting paint or lacquer to protect the outer surfaces.

The Quartermaster Corps is endeavoring to have coating facilities provided in all canneries in order to ship overseas requirements of canned foods in coated cans. In the event the can coating program cannot be entirely completed, uncoated cans, properly marked, but without paper labels, will better meet climatic conditions in overseas theaters, in the opinion of Quartermaster officers.

## Books by Offset Schedule

The traveling exhibits "Books by Offset" being sponsored by the Harris-Seybold-Potter Co., are scheduled for April as follows:

Omaha, Nebr.—April 12.

Nashville, Tenn.—April 13.

Atlanta, Ga.—April 28.

Seattle, Wash.—April date to be announced.

A similar exhibit sponsored by the American Institute of Graphic Arts has also been shown in various cities, but at present no future schedule is arranged. Information on these exhibits may be obtained from Louis R. Beck, sales promotion manager of the Harris Company, Cleveland 5, or from the institute, 115 E. 40th St., New York.

## Salvage Incognito

Obsolete, but still secret aircraft blueprints and drawings are going into the waste paper salvage program—incognito and under guard. Two tons of paper per day, including that containing information still considered confidential is collected at the Bendix Aviation Corporation division at Teterboro, N. J., and taken under guard to shredding machines where it is reprocessed to help relieve the paper shortage.

## Lithogs on Lotos Slate

The Lotos Club of New York re-elected officers April 3 and two lithographers are among them. Major General William Ottmann, chairman of U. S. Printing & Lithographing Co. and secretary of the Lithographic Technical Foundation, is vice president, and Robert R. Heywood, of R. R. Heywood Lithographing Co., and treasurer of the Foundation, is a director. The recent dinner of the Foundation was held there.



**INGREDIENT "X"**

... "33" INK CONDITIONERS' own wetting agent! As one of the combination of highly potent chemicals, ingredient "X" functions to make pigment and vehicle combine for highest efficiency.

Eliminate the need of varnish thinners, adjusters and compounds with "33" Ink Conditioners—unequalled for making fine reproduction easier.

"33" Ink Conditioners increase the affinity of ink to paper and permit ink to print readily on hard-finish stock, tissue, glassine and cellophane.

"33" Ink Conditioners are unexcelled for gloss inks and overprint varnish; prevent too rapid drying on the press, without affecting gloss.

Write for your copy of "To the Pressmen" and take advantage of the trial offer NOW under our guarantee.



**100% Guarantee**

**8 POUND TRIAL ORDER**

If our Ink Conditioner does not satisfy you completely, return the unused portion at our expense.

"33" (letterpress) "0-33" (litho & multilith)

LOS ANGELES SAN FRANCISCO DALLAS HOUSTON OKLAHOMA CITY  
MIAMI ORLANDO TAMPA JACKSONVILLE TALLAHASSEE CHARLOTTE  
KNOXVILLE ATLANTA WILKES-BARRE MILWAUKEE ST. LOUIS KANSAS CITY  
DENVER CINCINNATI DAYTON HARTFORD TORONTO MONTREAL HONOLULU

**Central**  **COMPOUNDING COMPANY**  
1718 North Damen Avenue, Chicago, Illinois



Credit for the winning of the Army-Navy "E" belongs to the men and women of the Neenah Paper Company. Their loyalty and wholehearted cooperation is an inspiring example of partnership between our American workers and our American fighting forces. It is also typical of the care and effort that has always gone towards making NEENAH'S fine rag papers outstanding values in the commercial market.

# NEENAH

**FINE RAG PAPERS  
FOR EVERY BUSINESS NEED**



**NEENAH PAPER COMPANY • NEENAH, WIS.**

**WHEN LITHOGRAPHIC PLATE MAKING EQUIPMENT  
CAN AGAIN BE MADE, LOOK TO**

## **VALETTE PRODUCTS FOR LEADERSHIP**

In the years preceding Pearl Harbor Valette products were known for their advanced design and dependability. Now our greatly expanded and re-equipped plant is devoted entirely to the production of precision war products. But while this work is utilizing our full production facilities, Valette engineers are developing new ideas to further the advancement of the lithographic industry.

### **LITHO EQUIPMENT & SUPPLY CO.**

**215 WEST OHIO ST.**

**CHICAGO, ILL.**



### **Stern Plugs CED**

The story of the Committee for Economic Development is told and illustrated in the latest issue of *The Depictor*, external house publication of Edward Stern & Co., Philadelphia. As in the case of their recent issues on the Red Cross Blood Plasma Drive and Labor Management Committees, the magazine carries no advertising for the company or its product and has no date of issue so that it will remain timely. Edward Stern's own mailing list was supplemented by 2,500 copies presented to the committee for distribution as it sees fit. Extra copies are available for executives who write to Edward Stern & Co., Philadelphia 6, on their letterhead.

### **Show Meyercord Work**

The Meyercord Company's fifty years of service to the furniture industry is emphasized in a display which has been installed in Chicago's American Furniture Mart. Known as the "Sans-Arb Salon," the exhibit portrays the use made by furniture

manufacturers of the Meyercord "Sans-Arb" decalcomania lacquer veneers, which simulate real woods and veneers for use on furniture of every type. Decals for wall decorations and other purposes in the home are also shown.

### **Shipping Cases From Posters**

Point-of-sale displays of Armour & Co., Chicago packing firm, are now going out in shipping containers fabricated from used posters which have already served their intended purpose of advertising Armour's products from the side panels of the Armour trucks. The posters are changed monthly, and instead of being discarded, are collected die-cut and folded, and made into shipping containers, helping to meet the restrictions imposed on such containers by WPB Order L-317. The order prohibits the use of corrugated board for the packing of advertising material.

### **Introduces Posters**

Litho-Paint Poster Co., Chicago, has introduced a series of poster displays for automobile service stations stressing the service offered by the stations. They are 25 x 38 inches and are produced by silk screen process in four to six colors.

### **Conn. Litho Club Meets**

The Connecticut Valley Litho Club was scheduled to meet April 7 at the Bond Hotel, Hartford, to hear Charles F. Geese, past president of the Philadelphia Litho Club, and to wind up its affairs for the current season. Mr. Geese was to discuss presswork and a question and answer period was to be held. The next scheduled meeting of the club is to be October 6.

### **To Hold Mail Meeting**

A direct mail clinic is planned by the Advertisers Club of Cincinnati to be held at Hotel Gibson, Wednesday April 26. It is scheduled to open with a luncheon at noon.

### **Herb Kaufman in Navy**

Herbert Kaufman, advertising manager of General Printing Ink Corp., New York, was sworn into the U. S. Navy, April 5 and is to hold the rank of Lieutenant (j.g.). Mr. Kaufman has been active in several graphic arts organizations, and was director of the Printing Advertising Clinics sponsored by his organization.

## **MEN BEING DRAFTED?**

The new employees hired to take the place of drafted men in your shop will find a subscription to *Modern Lithography* of practical benefit. So why not invest the price of a subscription today for both old and new employees? Group rates, and individual rates are low, and there is a special rate for that ex-employee in camp who expects to come back into your shop at the end of the war. See page 5 for rates.

**MODERN LITHOGRAPHY**  
**254 W. 31 St., New York 1**

# BLANKOT

Reg. U.S. Patent Office

## A NEW REMEDY FOR AN OLD CONDITION

BLANKOT is a liquid that immediately rectifies bad conditions of rubber blankets on offset presses, whether caused by grease and oil, water, or atmospheric conditions, all of which make rubber blankets unfit for use.

*Apply BLANKOT with a soft rag or cheese cloth*

MANUFACTURED ONLY BY

MARTIN DRISCOLL & CO. ★ CHICAGO, ILL.

GREAT WESTERN PRINTING INK CO., PORTLAND, OREGON ★ BRANCH FACTORY, MILWAUKEE, WIS.

## SERVICE PLUS QUALITY!

HAS MADE OUR PLANT THE WORLD'S LARGEST

WE SPECIALIZE IN  
SMALL PLATES

ALSO REGRAINING MULTILITH

ZINC and  
ALUMINUM PLATES  
UNGRAINED-GRAINED-REGRAINED




Telephone:  
EVERgreen 9-  
4 2 6 0  
4 2 6 1

Lithographic Plate Graining Company  
of America Inc.

EXCLUSIVE MANUFACTURERS OF PREPARED PLATES

37-43 Box Street-Brooklyn, N.Y.

# THROUGH the GLASS



**A** FEW days ago American soldiers and marines landed in the Marshalls under the protective fire of our naval guns. From one of the first landing barges a portable printing plant was heaved overboard, towed ashore, uncrated, and assembled on the beachhead. In less than an hour printed instructions, prepared on the spot, were released for guidance of successive landing parties, giving them outlines of the attack, hasty, rough sketches of enemy positions and a great deal of other information the first-to-land were able to pick up and assemble. Never before has the printed page been so enormously important a part of the preparation for and the actual prosecution of war.

ml

The foregoing is from a recent talk by Public Printer Giegengack before the Chicago Craftsmen.

ml

Ever hear of Big Red? Big Red is a U. S. Flying Fortress whose crew chief is M/Sgt. Frank W. Grover, formerly of Forbes Lithograph Mfg. Co., Boston. So far his ship has made 28 missions over Europe, and by the time this is published probably several more. A letter from Frank, as well as letters from many other former Forbes men in Service, is contained in a recent issue of the Forbes "Hello-Gram."

ml

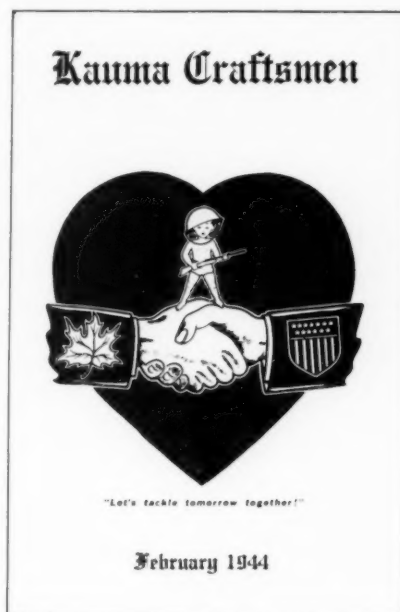
This bit of philosophy comes from the *British and Colonial Printer*, published weekly in England: We plan for the future, but we belong to the past, and the great values of the past lose none of their validity just because we can fly in aeroplanes or use four-color offset machines.

ml

Would it be the same if we had a four-color press that flies?

APRIL, 1944

The accompanying illustration shows the cover of the *Kauma Craftsman*, employee magazine of the Kaumagraph Co., Wilmington, Del. This cover was contributed by Kaumagraph, Ltd., the



associated company of Paris, Canada. Design is by Ken MacKenzie, the Canadian firm's art director. Editor of the publication is Frances M. Haskell, and Ruth C. Schaack is associate.

ml

Walter C. Guy, president of Arkansas Printing & Lithographing Co., Little Rock, is to be a delegate to the Imperial Council, A.A.O.N.M.S. In case you are wondering, this is not a government bureau, but the letters stand for Ancient Arabic Order Nobles of the Mystic Shrine.

ml

There has been considerable interest shown in the fact that Forbes in Boston was lithographing invasion currency used by American troops in Sicily and Italy. From a British trade paper we clipped this:

German Currency Being Printed in U. S. A.?—In reply to questions at a recent Press conference about the printing of French currency in the U. S. A., President Roosevelt stated

that he "would not be a bit surprised" if the U. S. was printing some German currency for use on the continent of Europe, and that the U. S. was printing money for many countries which were being, and would be, occupied.

ml

Ben F. James, Franklin Printing Co., Philadelphia, was chairman of the Red Cross Drive among printers and lithographers in that city during March.

ml

Notes on topics of interest to buyers of printing and users of direct mail advertising are contained in the "Recorder," external house publication of the Recorder Printing & Publishing Co. and Sunset Press, San Francisco lithographers and printers. It is issued in a 16 page 4 x 9 in. pocket size, with a cover sometimes printed in four colors. Edward F. O'Day is editor. The company lists two branches, one in San Francisco, and one in Los Angeles.

## June Covers to Show Bonds

One hundred dollar war bonds as the feature illustration of front covers of the June issues of magazines are asked by the U. S. Treasury Department, and a program for this purpose is under way through the National Publishers Association. The promotion will tie in with the Fifth War Loan. Lithographers producing house magazines may obtain information from the War Finance Division of the Treasury Department, Washington.

## Reprints German Books

Edwards Brothers, Ann Arbor, Mich., has been reprinting by offset a number of technical books which were originally published in Germany. Reprinting is done by authority of the Alien Property Custodian of the federal government, and is awarded through competitive bids. Many of the books had never been circulated outside of Germany and are now in demand by American industry and by universities.

## Issue Color Booklet

"Let Me See Your Tongue" is the title of a booklet just issued by General Printing Ink Corp., dealing with unusual facts on the medical aspects of color. Copies are available from the GPI firm, 100 Sixth Avenue, New York 13.





## POST-WAR PRINTING

While still operating under all-out war restrictions large printers are now planning for peacetime markets. Reconversion to civilian demands will not include new equipment for some time. Higher quality and efficiency will have to come through better production management and finer printing materials.

If your shelves do not contain substantial supplies of PACEMAKER OFFSET—the nationally recognized mill brand of fine quality in litho printing—studied upward revisions in inks and other materials will fail to reach that higher quality objective.

GEORGE A. WHITING PAPER COMPANY, Menasha, Wisconsin

## MANUFACTURERS OF PACEMAKER OFFSET BROCKWAY COVERS and LEDGER PAPERS



***This can contains  
more than  
just ink!***

Into every can of Sinclair & Carroll ink goes the knowledge, experience and skill we have developed during many years of research and manufacture of lithographic inks. That's why Sinclair & Carroll has come to be known among lithographers as "a dependable source of supply."

## SINCLAIR & CARROLL CO., Inc. LITHO—INKS—OFFSET

591 Eleventh Avenue

New York City

Tel. BRyant 9-3566

CHICAGO  
440 W. Superior St.  
Tel. Sup. 3481

LOS ANGELES  
417 E. Pico St.  
Tel. Prospect 7296

SAN FRANCISCO  
345 Battery St.  
Tel. Garfield 5834

NEW ORLEANS  
211 Decatur St.  
Tel. Magnolia 1968

## Blackburn, Arvan, Gould Address New Yorkers

**M**ANPOWER, unions, wages and paper supply all came in for thorough discussion at a meeting, March 30, of the New York Photo-Lithographers Association, as representatives of paper suppliers, the lithographers union and employers association, aired their views. Thirty-five attended the meeting, which was held in the Building Trades Club, New York. Considerable interest was shown in the remarks of John Blackburn, president of Local No. 1, Amalgamated Lithographers of America, who outlined the union's wartime policies and answered questions fired at him from the floor.

Discussing the draft of manpower, Mr. Blackburn said that if an employer has a highly skilled employee and can show that he is in critical war work, he can probably be deferred. He said that approximately 30 per cent of the men in the local union are still classified in 3A, and face the 1A classification and the military physical examination. Summing up the current labor supply in New York, he stated that there are 5400 ALA men in the area, 800 of which are now in service, and about 47 have been discharged from service.

Mr. Blackburn reviewed the union's policies on overtime and said that a 10-hour day, or a 50-hour week is the maximum if efficient work is to be expected from the employee. In answer to questions from the floor, he said he thought five minutes was time enough for employees to clean up before the quitting hour, and that it is not fair for employees to change their clothes on the company's time before commencing work. He stressed that his organization stood ready to cooperate with employers whose men habitually come in late so that overtime pay may be drawn after the regular working time. He cautioned against leaving a man alone in a department on overtime, citing several instances where accidents have occurred with serious results, even

where no moving machinery was involved.

Daniel Arvan, counsel for the Eastern Lithographers Association, and a specialist in labor and wage questions, followed Mr. Blackburn, and took exception to some of the union policies. He said he did not believe that present apprentice rules are justifiable in view of the manpower shortage, to which Mr. Blackburn replied that the union was now in the process of studying this problem.

Mr. Arvan said that the draft situation, with regard to lithographic plants, has grown critical almost overnight, and that 2A and 2B classifications have almost completely stopped even in shops doing direct war work. In order to obtain deferments he said someone from the government department for which the war work is being done, must appeal in person before the draft board. A letter will no longer accomplish the purpose, he asserted. Real pressure is now being exerted for shifting men from non-essential litho plants to those doing war lithography.

He described the contract between the local union and the Eastern group which allows for a two and one-half per cent wage increase each time the cost of living index advances five points. For the last two months this

index has declined slightly from a high of 125 in December. When this drops below 120, he said, then the crucial test of the union's hold on its men will come, because according to the contract, a decrease in pay will be due. This will form the postwar pattern, he said. Mr. Arvan also predicted growing jurisdictional disputes between the ALA and other printing trade unions whose wage scales are below that of the lithographers. Pressmen's and other unions are already showing signs of edging into the litho field, he asserted.

Harry Gould, of Reinhold-Gould, paper distributors, gave a summary of the current paper situation, and told of a new amendment to the present paper restriction orders which will reduce weights of offset papers for multiple color work from 65 to 60 pounds, and for other work, from 60 to 55 pounds. The outlook for paper supply, interposed with a good many "ifs," should improve in the latter part of this year or early in 1945, he said. One encouraging factor is the easing up of metal for containers which should relieve some demand for paper for this purpose. He warned that increased paper prices were inevitable because of recent increases allowed in the price of pulp.

Victor Friedman, president of the NYPLA, presided, and Walter Soderstrom, secretary, arranged the meeting.

## Postwar Advertising of Litho Houses Appears



These advertisements have appeared during the past month in advertising trade publications and indicate groundwork being laid by these litho firms for postwar markets. Left to right the ads are of The MeyerCORD Co., Chicago; Stecher-Traung Lithograph Corp., Rochester and San Francisco; National Blank Book Co., Holyoke, Mass.; and Forbes Lithograph Mfg. Co., Boston.

# A GRAPHIC POINT ABOUT POSTWAR DEVELOPMENTS ●

For 164 years Huber has given continuous, reliable service to the graphic arts. Old? Yes, in point of years—but always on its toes when dealing with problems of the day. Just as it will be 'way out in front when it comes to dealing with postwar printing perplexities and developments. It's good business to rely on a supplier who controls every phase of manufacture even to the production of raw materials . . . for your printing inks — LETTERPRESS or OFFSET for the PUBLICATION, CONTAINER, BAG, WRAPPER and COMMERCIAL fields . . . or for other grades of inks. It pays to keep ahead with Huber.

HUBER PRODUCTS



IN USE SINCE 1780

## J. M. HUBER, INC.

NEW YORK

• CHICAGO

• ST. LOUIS

• BOSTON



## BLACK THAT'S BLACK WHITE THAT'S WHITE

Graph-O-Lith developer gives you negatives with both these characteristics. Never any loss of tone or detail. Always clear dot formation, because Graph-O-Lith halts development in the low densities. Does its job in hard water and won't blister your negatives.

● GRAPH-O-LITH DEVELOPER FOR LINE AND HALFTONE NEGATIVES ON PROCESS FILM, STRIPPING FILM AND PAPER.

### PHILIP A. HUNT COMPANY

ESTABLISHED 1909

BROOKLYN, N.Y.

CHICAGO, ILL.

CAMBRIDGE, MASS.

LONG ISLAND CITY, N.Y.

CLEVELAND, OHIO

Help yourself,

help your country —

BUY WAR BONDS.



# NEW EQUIPMENT AND BULLETINS

## Announce Beattie Camera

A compact lithographic process camera occupying space three by four feet, and now in use in military trucks and airborne offset printing units,



will be available to the commercial lithographic trade following the war, according to its manufacturer, the Beattie Process Camera Co., Summit 9, N. J. Linked with small offset presses, the camera unit, with lights, a new type of vacuum frame, vacuum pressure pump, printing light, and whirler, has been in use by the armed forces for about two years for reproduction of maps, charts, photographs, drawing, pamphlets, magazines, newspapers and propaganda material. The entire unit requires a darkroom no larger than six by eight feet.

Advantages claimed for the camera include simplicity of operation, shortening of the training time required for operators, speed of operation, compactness, and accuracy in the reproduction of fine details. Beattie contact screens, up to 400 line, are also part of the outfit. The camera is made in sizes to produce negatives

ranging from 12 x 15 in. to 14 x 18 in. The complete outfit may be set up in a matter of minutes, it was said.

Developers of the camera are two brothers, Kenneth W. and Roland P. Beattie, who have long been associated with Field & Beattie, Inc., New York photo-engravers and lithographers.

The manufacturers state that the process camera will have wide application following the war in conjunction with small offset presses in smaller shops.

## To Market Lens Adjuster

The Bailey Automatic Aperture Control for lithographic cameras is to be placed on the market following the war, according to Harrison W. Bailey, who at present is superintendent of the offset department of the A. T. Howard Co., Boston. A folder describing the device states that the highlight and middletone apertures of the lens are automatically set when the camera is focused. Calculations for lens openings, bellows extensions, stops, and timing, can be eliminated after the control is adjusted, and all copy and all screens can be handled at the same exposure time, the statement says. The device may be used on line, halftone, or process color work.

## Announce Packaging Catalog

The 1944 Packaging Catalog, featuring reconversion in the packaging field, is to be issued soon, and will contain articles and charts on planning and production of peacetime containers. It will contain 136 articles on every type of package, package part, packaging material, techniques and equipment. Half of these are to be new, while the others will be re-written with new illustrations, the advanced notices state. One section of the catalog will deal with advertising displays.

## Announce Lucite Rollers

Ink distributing rollers for offset presses and duplicators, made of "Lucite" methyl methacrylate resin are now being used, according to an announcement made by E. I. du Pont de Nemours & Co. Rollers of the plastic, a product of the Plastics Department of the du Pont company, are fabricated by the Lumirol Co., New York, which developed the new type of distributor. The plastic parts are in successful operation on machines used in government agencies in Washington and are being used by commercial firms in New York, it was said.

Lucite is a transparent plastic, and it is pointed out that in cleaning, ink which might remain on the roller will not be overlooked. The plastic rollers are easily cleaned the statement said, and may be used with clean-up attachments.

## Plaskon Promotes Plates



This Plastolith plate, made of paper and Plaskon Resin Glue, is the type now being used in government offset plants. These plates were featured in a full-page four-color advertisement recently in "Fortune" promoting Plaskon, a product of Owens-Illinois Glass. The paper sheets of the litho plates are said to be bonded together with Plaskon urea-formaldehyde resin and the outside surfaces coated with the same material. The printing side is coated with three layers of alcohol and clay emulsion. The press shown here is a Webendorfer 17 x 22, being operated by pressman Vincent McDonough, in the plant of M. B. Cloff & Sons, Inc., Brockton, Mass.



## And what it means to Lithography—

As pioneers in manufacturing chemicals especially suited to wet and dry plate photography, Mallinckrodt acquired experience valuable later in serving the entire graphic arts industry. From those earliest years, manufacturing chemists have constantly

checked every process for two objectives: (1) Chemical purity and uniformity, and (2) Physical suitability to the specific use of the chemical. Mallinckrodt Chemicals must be kept uniform and dependable, free-flowing and easy to dissolve.

See descriptive price list, "Mallinckrodt Chemicals for the Graphic Arts," for further details, and order your chemicals by name, MALLINCKRODT.



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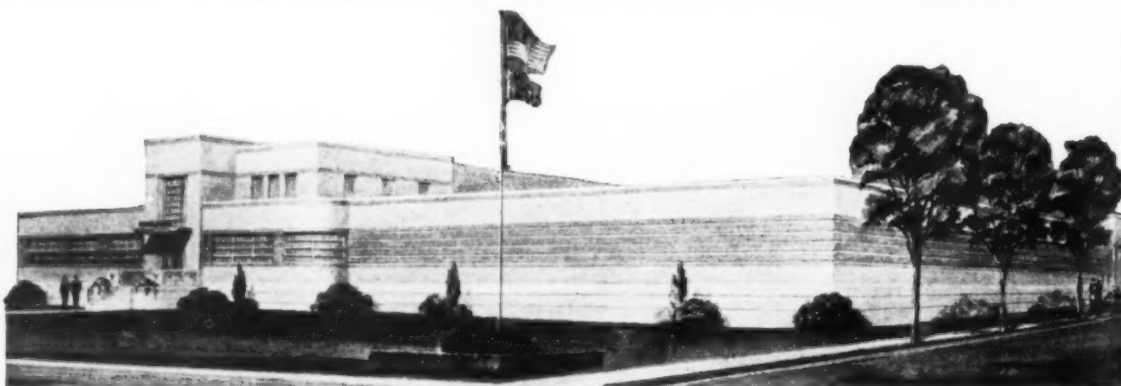
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## HAMMER LINE-<sup>RTM</sup>O-TONE NON-HALATION



A high contrast Ortho film with good speed and unusually wide latitude. For line and half-tone reproductions. Excellent for projection or contact positives for dot-etching. Try Line-O-Tone Film for faded, weak or difficult copy. Supplied on .005" or thin safety base.



The new modern plant is now producing all brands of Hammer Film.  
Hammer Dry Plates will be available after May 1st.

### HAMMER DRY PLATE & FILM CO.

Ohio Ave. and Miami St.

St. Louis 18, Mo.



## Ad Art Show Opens May 15

The annual exhibit of advertising art, including printed advertising, booklets, posters and other media, sponsored by the Art Directors Club of New York, is scheduled to open in Rockefeller Center, May 15. It will remain open until June 3. Advertising material produced between February 1943 and April 1944 may be entered. The sponsoring group has headquarters at 115 East 40th St., New York.

## Name New Craftsmen Members

New members inducted recently into the Chicago Club of Printing House Craftsmen included Clifford J. Jahp, personnel manager, The Meyer-cord Co., Wm. D. Hall, assistant general manager, Wm. D. Hall-Stanley Wessel Co., and Bruno B. Pasquinielli, chief designer, Miehle Printing Press & Mfg. Co.

## WASHINGTON

(Continued from Page 37)

locate, with a view to securing the release of any and all distress stocks of 35-, 36-, 37-, and 38-gauge black-plate suitable for use in the Calendar

## May Curb Political Printing

On March 20 the House passed legislation making it a criminal offense to distribute or publish anonymous political statements relating to candidates for federal offices, and the bill was sent to the Senate for consideration. The measure provides that the names of persons responsible for publishing or distributing pamphlets, cards, circulars, posters, dodgers, advertisements or any other statements concerning candidates, must be stated. In cases where such material is issued by a group, association or committee, etc., the names of the officers must be included.

Industry. Will you please report any knowledge you have of such distress stocks?

"If you are interested in securing any such material, file a Form WPB-1477 application in the field office of WPB and send a copy of it to us. All appeals when received are tabulated and such stocks as we may have located will be presented to WPB for release in accordance with the information presented on your WPB-1477 application form."

## Glycerine

All restrictions have recently been removed from the use of glycerine in the manufacture of printers rollers. This material was previously allocated, although effects on the user of rollers were not apparent.

## Linseed Oil for Ink

Quotas of linseed oil for printing ink manufacturers have been removed and ink makers may now obtain this oil without restriction. Linseed oil accounts for over 90 per cent of the oil used in printing inks and is the chief ingredient in litho varnishes ★ ★

## SURPLUS MACHINERY

(Continued from Page 27)

agency may not have further need, and in the exercise of his option may elect either to use the equipment in the Government Printing Office or decline to use it. If the Public Printer does not accept the equipment now in use, then under the existing practice, it may be disposed of to anyone who is interested in purchasing it.

"Naturally, I do not anticipate that the Government Printing Office will have much need for equipment now in use by other agencies of the Government in their so-called field printing plants. So, ultimately, the greater part of that now in use will find its way to commercial channels."

Mr. Giegengack then said that in discussing the problem with Will L. Clayton, administrator of the new Surplus War Property Board, the latter indicated that if the Public Printer declines to accept the equipment for the GPO, then it would come under the jurisdiction of the Reconstruction Finance Corporation for disposal. His board, he said, would be opposed to any group of people buying up surplus equipment to be exorbitantly marked up for resale to the printing industry, but he felt that the RFC would approve a plan predetermining a fixed percentage markup under the control of industry and equipment manufacturer representatives.

**M**R. FELL was more inclined to minimize the possible effects of surplus equipment on the commercial

industry. Excerpts from his remarks follow:

"The special worry about future army and navy surplus equipment is this—the equipment is mostly lithographic. It consists of offset presses smaller than 22 x 34", and the necessary plate-making equipment: cameras, vacuum frames, whirlers, etc. But much of the equipment was specially designed for compactness to operate in mobile trucks and trailers. It was bought for combat duty, for map making, for shipboard use and for advance bases. Some of it will suffer battle damage or rough usage and it won't be worth salvaging. And it may well turn out that it will be too much trouble and too costly to be worth bringing home.

"There will be, besides, a much larger number of surplus Multiliths and Davidson duplicators, which have been bought in substantial quantity by the services. This equipment is not handled by the Printing & Publishing Division. But a large number of these machines were bought for combat and foreign duty and many will not be brought back to this country. The printers and lithographers are wondering about the impact of these duplicators on their business.

"Essentially then, the surplus equipment hanging over the industry is a modest amount of small-size lithographic machinery and a larger amount of duplicators. This leads to the question: how is this to be disposed of? At the present time a few surplus duplicators are being disposed of by Treasury Procurement. That agency offers the equipment first to other branches of the Army and Navy; then to old-line federal agencies; to state and municipal institutions, to non-profit charities, to educational institutions and to allied governments in that order. If none of these organizations want the equipment, next it is offered to the manufacturer. So you see that quite a number of potential buyers can absorb the current surpluses before they are available to a commercial user. And because the sale of duplicators has been so largely limited to the military up to now, there is a large unfilled demand for the surpluses from the other agencies I have named." ★ ★

## NOTES ON LITHOGRAPHY

(Continued from Page 32)

of printing if we will make the needed change.

In January, 1924, we were called in to help eliminate offsetting on a large label sheet being printed from our photo compound plates on an offset press. The red solids were off-





# Whiting's STANDARD PAPERS

## BONDS

No. 1 BOND  
100% rag

STATE  
100% rag

IMPERIAL  
100% rag

EXPOSITION  
75% rag

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50% rag

MUTUAL  
25% rag

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WRITINGS  
(White only)  
Superfine  
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10 HIGH ST.

When you think of *writing* —  
think of *Whiting!*

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Top performance is required in every part of the war, whether on the battlefields or in industry at home. It's required of the materials you use in your own lithographic plant, from your cameras, your presses, your paper, your ink.

Ink Performance is our specialty. If you want performance in black ink, performance that will keep your presses running at high efficiency, and give you strong, brilliant solids and halftones, try ECLIPSE DEEP-SET BLACK. You'll discover why so many pressmen insist on ECLIPSE black in the rush of today's large volume, high speed, operation. Send for a trial order and try it in your own pressroom.

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Help conserve essential metals. Order inks in the largest container sizes you can conveniently handle. Avoid rush orders by anticipating your needs.

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538 S. Clark St., Chicago, Ill.

★ ★ ★ ★ ★

setting strongly on the back of sheets after they hit the printed stack, over the faces of the underlying sheets, and lift-fanning the corners disclosed a startling fact. I thought I saw the offsetting strengthen on the back of the sheet during this lift fanning check-up. The pressman was asked if he noticed the increase. He verified it. Grounding the static, reduced the offsetting so the printing proceeded.

Before the end of that day, I proved to my satisfaction that statically charged surfaces will definitely attract ink across an inch or more of gap.

The principles of electrical attraction for ink can be demonstrated by creating a static charge on a film with a sheet of paper on the film surface. This charge will attract ink from a brush at a considerable gap.

We have about completed in our laboratories, the first commercial size press on which we will demonstrate relief, flat plate and gravure on inserts to be used in the trade papers when we are ready to announce the process officially. When the various processes have been printed on this press, we will invite groups of trade craftsmen to witness the performance of the press and to show other developments in practical operation, such as the Phototextype Composing Machine Camera, and the one shot, one plate, four-color camera.

We are not promoting any of the items referred to above. There is nothing for sale either directly or indirectly. If and when the proper time comes, and printers want to use these new development items, they will be available on the market.★★

## FLUORESCENT

(Continued from Page 26)

technical staffs and laboratories of American industry.

### References

<sup>2</sup> Danckwortt, Prof.-Dr. P. W.: "Lumineszenz-Analyse im filtrierten ultravioleten Licht," 3rd ed., Akademische Verlagsgesellschaft m.b.h., Leipzig, 1934.

<sup>3</sup> Radley, J. A. and Grant, Julius: "Fluorescence Analysis in Ultraviolet Light," 2nd ed., Van Nostrand Co., New York, 1935.

<sup>4</sup> Hendrich, Walter G., Personal communication, 1944.

<sup>5</sup> Smith, Paul A., "Aeronautical Chart Production," *The Military Engineer*, July 1943, pp. 357-361.

<sup>6</sup> Donoghue, Lt. Col. John A., "Maps Must Be Made by the Millions," *The Military Engineer*, Sept. 1942, pp. 427-429.

<sup>7</sup> Color vision and night vision involve complex physiological and psycho-physical factors. For additional information the reader is referred to: Liljencrantz, Swanson, and Carson, U.S.N., M.C., "The Use of the Eyes at Night," *U. S. Naval Institute Proceedings*, June 1942, pp. 802-810; and Vavilov, S. I. and Timofeeva, T. V., "Visual Measurements of Quantum Fluctuations," *Acad. of Sci. of U.S.S.R. Jour. of Physics*, Vol. VII, No. 1, pp. 1-17.

<sup>8</sup> War Department Specifications No. 43-139.

<sup>9</sup> G. F. A. Stutz, "Luminescent Pigments," Technical Association of the Pulp and Paper Industry, February, 1944. (Summary of this paper follows.)

<sup>10</sup> Coast and Geodetic Survey Specifications dated November 3, 1943.

(The following information which defines terms and explains light sources which activate fluorescent pigments, is condensed from a talk by G. F. A. Stutz of The New Jersey Zinc Co., at the TAPPI meeting. MODERN LITHOGRAPHY can furnish further references on this subject to anyone wishing more information.—Ed.)

THE phenomenon of photoluminescence in which some form of radiant energy, usually ultraviolet light, is absorbed and is then re-emitted as light of a longer wavelength, usually visible light, has been known for many years. However, it has been principally of scientific interest and has found only limited commercial application until the so-called fluorescent lamp was introduced several years ago. The present war effort is largely responsible for further accelerating scientific study and development in the field of photoluminescence and for bringing about practical applications other than the fluorescent lamp.

Luminescence is the term generally applied to the emission of visible light following the absorption of activating radiant energy. There are two types of luminescence—fluorescence and phosphorescence. Fluorescence is a luminescence which continues only during the period that the activating light source is shining on the material. Phosphorescence is a luminescence which continues for some period after the activating light source is extinguished, the period of afterglow being from a few seconds to many hours. We therefore distinguish between fluorescent pigments which have no afterglow and phos-

phorescent pigments which have a useful lag or after-glow.

The exciting light sources useful with luminescent pigments responding to the long ultraviolet spectral range, are quite varied and numerous.

Incandescent filament lamps are a reasonably satisfactory source of exciting light and the ordinary tungsten filament lamp, equipped with a nickel oxide glass filter, is often used. It contains more ultraviolet light if burned at over-voltage as in the photo-flood lamp. The 2-cell or 3-cell flashlight, suitably filtered, provides a weak source of exciting light. The ordinary automobile headlight, suitably filtered, furnishes a moderately strong source of exciting light.

Argon glow lamps have an appreciable amount of their total radiant energy in the long ultraviolet, and are therefore satisfactory sources for exciting luminescent materials. Again best results are obtained if they are suitably filtered by a nickel oxide glass filter.

Mercury vapor lamps have been most widely used for excitation. The high-pressure mercury arc is particularly rich in long ultraviolet energy and has been fabricated in varying sizes, including 100 watts, 400 watts and, by water cooling, 1000 watts and even more. Again for satisfactory use with fluorescent materials, such sources must be filtered with nickel oxide glass filters.

While satisfactory printing inks have been prepared from these fluorescent pigments for use in compression printing in many fabrications, it has been found desirable to resort to other printing processes. In the case of instrument dials and other pieces of equipment where markings and gradations are required, the silk screen printing method has been used with considerable success. In the printing of tables of data where a black background is desirable, the bronzing or dusting method of printing has been quite satisfactory. Again, in the printing of dials and similar items requiring fine gradations and divisions, as well as in the printing of tables of data, the method

**SOME**

## **HANCO PRODUCTS**

**DEEP-ETCH DEVELOPING INK**

**ALBUMEN DEVELOPING INK**

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**DEEP-ETCH LACQUER**

**PLASAYER**—for bringing back weak images and often salvaging plates which are considered "blind."

**IMHOLD**—a slow drying lacquer which increases plate life.

**PRESERVED GUM SOLUTION** — non-souring and ready-to-use.

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**O-33 and 33 INK CONDITIONERS**—marvelous, non-greasing reducers for Offset and Letterpress inks.

**FOUNTAIN SOLUTION**—a proven and tested fountain concentrate.

**SUPRA FOUNTAIN SOLUTION**—an excellent working solution containing no bichromate or chromic acid.

**PLATE ETCH** — contains no bichromate or chromic acid so is absolutely safe to use as an etch and for gumming-up plate.

**BLANKLO** — for removing indentations in blankets.

**HANCOHOLD**—a popular lacquer used over gum giving plate longer life.

**WATER-REPELLENT HAND CREAM**—aids in the removal of ink from workers' hands and helps prevent dermatitis.

**STRIPPING SOLUTION**—a non-souring, very adhesive solution.

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of over-printing has been used quite successfully. By this latter process, rather coarse pigments may be used by incorporating them in a paint-like coating which is applied to the paper, metal, fibreboard, or other material to be printed and the over-printing is then done by conventional means using a black opaque printing ink.

Chemically, these pigments are quite stable, being unaffected by water, weak acids, or alkalis, or exposure to strong sunlight and weathering. In the form of paints, they have been exposed to outdoor weathering for months and even years with little loss in fluorescence. Under certain conditions of exposure to sunlight, in the presence of moisture, and in certain vehicles, the pigments are subject to a photo-chemical darkening, sometimes termed light-darkening. Precautions must be taken to select suitable vehicles or other dispersing mediums so as to avoid such photo-chemical darkening. ★★

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## PRESS BUGABOOS

(Continued from Page 29)

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cussed at length at our shop and it was decided to write you for further information.

In my article on Fountain Etch, in January *Lithographers Journal*, I seem to disagree with some of your statements. You must adjust fountain etch to cope with job at hand. For instance, can you run a fine tint yellow with the same etch required to print a very heavy solid red (warm red) purple, deep blue or even some blacks? Also, can you use a weak solution in the water fountain where owing to stock or solids you've found it necessary to add one or two ounces of compound per pound of color?

In a previous article you stress starting with a pH in the water fountain of 4.6 and adding acid as needed but never over 3.8. We start with 3.8 and on deep etched plates always double this but we can seldom run very long at 3.8 as our forms are too heavy.

Thanks for your writings and keep them up as something is gained by

someone from every one of them. We are trying to bring out these opinions in a constructive manner.

Sincerely,  
Oscar Diehl.

Dear Mr. Diehl:

With reference to the question in paragraph two of your letter, I would say that the strength of acid required for a fine tint of yellow would be weaker than that required to print solids whether they be blacks or reds. However, the pH ranging from 4.6 to 3.8 should cover any job regardless of color or whether it be tint or solid, all other things being equal.

In other words, if the rollers are set properly and the dampers are dampening the plate uniformly, and pressure is checked to be sure that it is even and not in excess, the problem of printing clean is narrowed down to ink and water. This seems to me to be the way to approach the situation.

The only consideration that remains is whether excess ink is required to match copy. If an ink cannot be had that is strong enough tinctorially and excess coverage must be resorted to, difficulty will be encountered in dampening and keeping the work clean.

Unfortunately, this is the most common cause of bad printing in the average offset plant. Not only is it difficult to print sharp and clean under these conditions but the dampening rollers get covered with ink and grease and in no time need replacing or cleaning. Then there is the problem of offsetting which can only be overcome by running ink spare.

Another problem due to excess ink is heating up of the pile causing the sheets to stick together and creating a static condition which causes feeder trouble on succeeding colors, and with the usual practice of adding extra drier to the color, crystallization is likely to add to the already plentiful headaches making it impossible to print the succeeding colors.

As for adding compound to the ink, I believe that is done to render

the color short or tackless. Greasy compounds should be avoided.

One method of shortening ink without increasing its greasiness is to use thin varnish such as No. 00000. Very little of this varnish is necessary to shorten ink and I don't believe any ink would require as much as an ounce to the pound. Of course anything can be overdone and I believe in using caution in reducing inks. However, I don't see any virtue in adding greasy compound and then increasing the acid in the water.

Regarding pH control, it has been proved that any form if run properly, can be run with a fountain solution of pH 3.8.

The term heavy form is very often a misinterpretation. A heavy form as I understand it is a form where the sheet is completely covered with ink save for some small open spaces such as type or even fine lines. This type of plate can be run clean and sharp with an acid content of 3.8 if the pressman knows what the proper ink coverage should be.

Within my own experience, solids 38 x 50 inches have been printed using a maximum of five pounds of ink per thousand impressions on offset paper regardless of the color. On the other hand, some men use just twice as much on the same form. What I am trying to make clear is that the film thickness of the ink is what governs the quantity of the acid needed and not the size of the image.

It is true that often it is difficult to match copy without crowding the ink, but whenever trouble is encountered it would be wise to recognize the facts and use stronger color where possible. Just a few small halftones on a sheet would give just as much trouble if the rollers were overcharged. The pressmen who pay attention to the amount of ink on the rollers at all times seldom have trouble keeping the work clean and sharp.

I don't suppose you will agree with me 100 per cent, but I can frankly say that the foregoing works out in practice.

Sincerely yours,  
Ted Makarius★★

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# TECHNICAL

# Briefs

## From Current Literature in The Graphic Arts

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### \*HOW TO OBTAIN COPIES

Where titles are marked with an asterisk, the original articles can be furnished by the Foundation (address above) as photographic copies at twenty cents per page, plus six cents postage for each four pages or less. Copies of United States patents can be obtained by sending ten cents per copy to the Commissioner of Patents, Washington, D. C.

#### Photography and Color Correction

\***Color Photography, Past and Present.** T. Thorne Baker. (Photographic Journal), 83, Dec., 1944, pp. 415-419 (5 pages). A fairly comprehensive review of developments in the field of color photography.

\***Kromolite Automatic Dropout.** Clinton H. Faille. (Photo-Engravers' Bulletin), 33, No. 7, Feb. 1944, pp. 11-14 (4 pages). Kromolite is the trade name for a new method of automatically dropping out highlights. This process makes use of three solutions and a number of special filters. The solutions and filters are used together and according to a strictly automatic motion, thus effectively dropping out halftone highlight areas as easily as making a regular combination exposure.

\***Selection of Copy for Photomechanical Reproduction.** Anonymous. (Bulletin for the Graphic Arts) (Eastman Kodak Company), No. 2 (1943), p. 3 (1 page). The best photographic copy for reproduction is the glossy, neutral-black, brilliant print with good detail in highlights and shadows. Toned prints and prints on matte and rough-surfaced papers give inferior results.

**Copy Preparation.** An excellent work on the preparation of copy for photomechanical reproduction has been issued by the Army Air Forces, the work serving as a guide in the preparation of manuscript and art for technical handbooks, intended for publication by Maintenance Data Section,

Air Service Command. Comprising a plastic-bound volume of 148 pages (8½ x 12), the issue deals with both line and photographic (halftone) copy, care and mounting of copy, proportion determination, as well as hints on lighting and photography for the production of proper originals. Attention also is given to wash drawings, line drawings, shading sheets, lettering, index numbers, overlays, vandyke prints, and simple line color illustrations. (American Photo-Engraver, 36, No. 3, March, 1944, p. 205).

\***Color Paper.** Glen C. Bull. (Modern Lithography, 12, No. 2, Feb., 1944, pp. 26-28, 67-68 (5 pages)). A direct color printing photographic paper is now in use by lithographers in the production of maps, and will be available generally after the war. This paper has an integral tripack structure and makes possible natural color photographs with little more effort than black and white. It is processed in the user's darkroom. Prints are made from three-color separation or multi-line separation negatives, or from complementary color negative film, by means of consecutive exposures through the standard Wratten filters F. N, and C-4. Details relative to structure of the paper, how the colors are formed, exposing the paper, development, and equipment necessary, are given. It is stated that this paper enables simplified color proofing.

**Development Agitation.** Walter Clark. (Popular Photography), 14,

March, 1944, pp. 38-39, 87-89. The necessity of agitating or rocking developing solutions for plates, films and papers is stressed by the author, who shows illustrations of defects occurring in cinema films through lack of agitation or improper flow of the solution. Attention is called to the fact that streaks and markings not infrequently are due to bromide released during development; in processing gelatine-bromide images and during conversion of the light-affected silver bromide to the metallic state, the bromide component of the silver salt goes into solution in the developer. Since bromide is a restrainer and retards development, its presence can cause streaks unless the solution is kept thoroughly mixed and caused to flow in an even manner by proper agitation. Other reasons are given for streaks, all of which are concerned with agitation of the developing bath. (American Photo-Engraver, 36, No. 3, March, 1944, p. 207).

**Kodak Reference Handbook** — 2nd edition. Published by Eastman Kodak Company, Rochester, New York. A loose-leaf handbook covering materials, processes, and technique. (Chemical Abstracts, 38; 689).

**A Substitute for Ferricyanide-Thiosulfate Reducer.** H. Cuisinier. (Photocinema), 23: 19, February, 1942. If potassium ferricyanide is not obtainable for Farmer's reducer, the author suggests using instead an ammoniacal cupric thiosulfate solution, which was described by Carey Lea in 1865 as a silver solvent. This is made by mixing, for use, equal volumes of a faintly ammoniacal solution of 3 per cent of copper sulfate and sodium chloride, and 20 per cent hypo. (Monthly Abstract Bulletin of Eastman Kodak Company, 29, No. 11, Nov., 1943, p. 408).

#### Planographic Printing Surfaces and Plate Preparation

\***Photo-Lithography — Positive Reversal—Gum Process.** A. Haigh and H. M. Cartwright. (Process Engravers' Monthly, 51, No. 601 Jan., 1944, p. 22 (1 page)). Detailed instructions are given for cleaning the reversal plate after development, with a 5 per cent lactic or acetic acid solution in anhydrous alcohol, which acts as a counter-etch. The final wash is done with some of the same solution to which 5 per cent of oleic acid has been added. Formulas for shellac and developing ink are included.

\***Photo-Lithography — Positive Reversal—Gum Process.** A. Haigh and H. M. Cartwright. (Process Engravers' Monthly), 51, No. 602, February, 1944, pp. 50-51 (2 pages). After the plate is inked it is recommended that the stencil be removed with dilute acid, followed by light scrubbing, after which the plate is etched and gummed. Albumin reversal plates are easy to



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prepare but require that washing after development be done with 20° Baume iron perchloride in anhydrous alcohol. This is followed by treatment with shellac and removal of the stencil. An alternative method is to use a tanning agent to harden the gum stencil, and then remove the developer with water instead of alcohol. Formulas and procedure are given.

**Etching Solution for Lithographic Plates.** Paul Whyzmuzis (to Interchemical Corporation). (U. S. Patent) No. 2,333,221 (Nov. 2, 1943). A desensitizing etch for lithographic plates which is capable of producing a water-attracting surface, consisting of a mixture of basic chromium sulfate, phosphoric acid, gum arabic and water, in the range of proportions— $\frac{1}{2}$  to  $1\frac{1}{2}$  volumes of a solution of: basic chromium sulfate 40-80 grams, phosphoric acid 6-8 drops, water 500 cc; and 4 to 12 volumes of 14° Baume gum arabic solution (at 25°C.).

**Art of Planographic Printing.** William B. Wescott (to Addressograph-Multigraph Corporation). (U. S. Patent) No. 2,342,713 (Feb. 29, 1944). The combination of a unified cellulosic planographic printing surface and a water immiscible image-former preferentially wettable by lithographic printing ink and exhibiting an adhesion for such ink greater than the internal cohesion of such ink, said image-former having spontaneous sorptive adhesion for unified cellulose and being sufficiently free from fatty acid to permit spontaneous bonding with said surface by mere contact therewith without the application of heat or lapse of time.

## Equipment and Materials

**Static Eliminator.** Games Slayter. (U. S. Patent) No. 2,333,213 (Nov. 2, 1943). Electric discharge equipment comprising an emitting electrode and a collecting electrode connected in a circuit with a source of alternating potential in a manner to provide an electric discharge of alternating polarity from the emitting electrode to the collecting electrode, and a discharge electrode connected in the circuit and having the same potential as the collecting electrode.

## Paper and Ink

**\*Coated Papers.** Fred A. Weymouth. (American Ink Maker) 22, No. 2, Feb., 1944, pp. 26-27, 45 (3 pages). This article is a discussion of the post-war aspects of coated papers with respect to future printing problems. A series of questions which have a direct bearing on post-war uses of coated paper are answered.

**Treatment of Paper.** Tootal Broadhurst Lee Company, Limited, Manchester. (British Patent) No. 557,389. This invention relates to the treatment of paper to improve certain physical

properties, namely, to increase its resistance to swelling in the presence of water vapour, common water, or other swelling agents. Sheets of paper are brought into contact with an excess of a solution containing a small proportion of an acid or potential acid and a large proportion of a reactive aldehyde, and then the impregnated paper is dried and heated for a short time at a temperature above 100° F. (British and Colonial Printer, 134, No. 796, Jan. 20, 1944, p. 24.)

**\*Thin Paper—Practical Pressroom Pointers for Handling Lightweight Stocks.** Theodore Makarius. (Modern Lithography) 12, No. 2, Feb., 1944, pp. 29, 69, 71 (3 pages). Under the increasingly urgent need for paper conservation the running of light weight paper will become common, but until pressroom employees become familiar with handling lighter weights, the result may be more waste than ever. When first using thin paper it is suggested that the machine be checked and that all necessary adjustments be made for the particular stock. The next thing to do is to observe the paper in the pile and to study its curling characteristics and action on the press. The remainder of the article deals with pressroom details.

**\*When Ink Meets Paper—The Final, Vital Step in Printing.** Anonymous. (Printing Equipment Engineer) 67, No. 2, Dec. 1943, pp. 177-184 (8 pages). This article is in three sections, the first of which might be entitled "Theory," since it discusses what is known about the mechanism of drying of ink. The second section principally discusses the properties of paper and their relation to printing. The third section takes up trouble and their remedies, and includes a chart of 35 "complaints," with methods of detection and possible causes.

**Alkali-Resistant Iron Blue.** Irving Shack and Edwin A. Wilson (to Interchemical Corporation). (U. S. Patent) No. 2,342,429 (Feb. 22, 1944). An iron blue pigment of improved alkali resistance, comprising an intimate admixture of ferric ferrocyanide particles and nickel ferrocyanide particles, the nickel ferrocyanide comprising from about 2 to 20 per cent of the mixture.

## General

**\*Half-Tone Dots.** Martin Leeden. (Modern Lithographer and Offset Printer) 40, No. 1, Jan., 1944, pp. 14-15 (2 pages). For ordinary photolithography a good magnifier affording ten diameters magnification is best. In exceptional cases twenty diameters or more may help to solve difficulties. Strong side lighting reveals the texture when plate grain is examined under a magnifier. The dots on albumin plates are more ir-

regular than on reverse and deep-etch plates. If a transferrer prepares photolith plates for the press, he must be careful not to overload them with ink so that the dots become permanently enlarged. Mealiness and degraded tones are often caused in this way.

**\*A Case History of Offset Problems.** Theodore Makarius. (National Lithographer) 51, No. 2, February, 1944, pp. 21-22 (2 pages). The author recommends written case histories as an aid in determining the causes of day-to-day troubles, and to avoid "buck-passing." The following plate troubles are discussed; Work walks off the plate; plate works greasy; plate washes or tints; plate does not roll up rapidly; plate does not wash out clean; misregister of individual images; deep-etch plates thicken in the shadow.

**Modern pH Chlorine Control** (Pamphlet). W. A. Taylor & Company, Baltimore, Md. 84 pages, 5 x 7 $\frac{1}{2}$  inches, paper covers. This is an illustrated catalogue of pH slide comparators, titrators, sterilizers and water analyzers but it also contains information on the meaning of pH control, colorimetric methods, etc., with tables of approximate pH values, buffer systems and a detailed list of applications such as in bacteriology, baking, brewing, and canning, in the manufacture of leather, in medicine, and in treatment of water. A copy of this booklet may be obtained without charge by writing to W. A. Taylor and Company, 7300 York Road, Baltimore 4, Maryland. (American Photography, 38, No. 3, Mar., 1944, p. 57.)

**\*Back to Fundamentals.** Anonymous. (National Lithographer) 51, No. 1, Jan., 1944, pp. 28, 30 (2 pages). (For the Cameraman): Discussion is contained on camera calculations for "f" number and screen distance. (For the platemaker): Method of making a "patch" on an albumin plate. (For the Pressman): The importance of inspection and adjustment of the press, taking nothing for granted.

**\*Back to Fundamentals.** Anonymous. (National Lithographer) 51, No. 2, Feb., 1944, pp. 30, 62 (2 pages). (For the Cameraman): Instructions are given for finding the proper setting for any given halftone screen. (For the Platemaker): Directions for patching or repairing deep-etch plates. (For the Pressman): Advice on the care of dampening rollers.

## Miscellaneous

**\*Printing's Prospects — Present and Future.** Douglas C. McMurtrie. (Share Your Knowledge Review) 25, No. 6, Feb., 1944, pp. 7-13 (7 pages).

**\*Trends in Printing Technique.** R. B. Fishenden. (Process Engraver's Monthly) 50, No. 600, Dec., 1943, p. 313; 51, No. 601, Jan., 1944, p. 9 (2 pages).★★

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pers, direct mail and catalogs, posters, and victory art.

Medal award winners and winners of honorable mention are shown in all of these classifications, with many illustrations in full color. From a lithographer's or a printer's viewpoint, however, it was disappointing that in the case of posters, direct mail material or catalogs, no information was given as to what process was used or where they were produced.

The book makes a fine permanent showplace for the best of current art, and would be a valuable addition to any graphic arts library. The book was produced by letterpress using inks by H. D. Roosen Co. The jacket was offset by Collins, Miller & Hutchings, Inc., Chicago.

It is on sale through the Kroch Bookstores or for \$6 from the publisher, at 206 N. Michigan Ave., Chicago.

## SHOP TALK

(Continued from Page 35)

### Solution No. 2

Water ..... 32 oz.  
Hypo ..... 1 oz.

Add No. 1 solution to No. 2 solution and use immediately.

### Eastman Kodak Company

#### Formula R-4a

#### Solution No. 1

Potassium Ferricyanide ..... 1 1/4 oz.  
Water to make ..... 16 oz.

#### Solution No. 2

Hypo ..... 16 oz.  
Water to make ..... 64 oz.  
For use take one ounce of Solution No. 1 to four ounces of No. 2 and add water to make 32 ounces. To stop the action wash negative under running water.

### Hammer Dry Plate Company

#### Solution A

Potassium Ferricyanide ..... 1 oz.  
Water ..... 16 oz.

#### Solution B

Hypo ..... 1 oz.  
Water ..... 16 oz.

Place all of B in a tray and add a small quantity of A. Dissolve Potassium Ferricyanide in a dark bottle as it is affected by light. Remove the negative several times during the operation and wash off the chemicals to prevent staining. When reduction is complete, wash thoroughly.

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When reduction is sufficient, the action is stopped by immersing the negative in a hypo solution or a fresh acid fixing bath. The following formulas are commonly used:

**Eastman Kodak Company—R 2  
Solution A**

Water ..... 32 oz.  
Potassium Permanganate ..... 1½ oz.

**Solution B**

Water ..... 32 oz.  
Sulphuric Acid ..... 1 oz.

For use, take stock solution A, one part, stock solution B, two parts, water sixty-four parts. When the negative is sufficiently reduced, immerse in a plain Hypo solution, or in a fresh Acid Fixing Bath for a few minutes, to remove yellow stain, after which wash thoroughly.

When preparing stock Solution B always add the Sulphuric Acid to the water slowly with stirring, never the water to the acid. Otherwise, the solution may boil and spatter on the hands and face causing serious burns.

If reduction is too rapid, use a larger volume of water when diluting the solution for use. This solution should not be used as a stain remover as it has a tendency to attack the image before it removes the stain.

**Hammer Dry Plate Company  
For local reduction:**

**Solution No. 1**

Potassium Permanganate ..... 1 oz.  
Water ..... 16 oz.

**Solution No. 2**

**Sulphuric Acid**

For use, take 1 dram of No. 1 and 1 dram of No. 2 and add to 8 ounces of water in just this order. For clearing stain, wash negatives after reducing; then place in plain Hypo solution or a fresh Acid Fixing Bath until the stain has been removed and wash again thoroughly.

(Next month — Super-proportional and proportional reducers.—Ed.)★★

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"Every time ah mentions dem two-bits wat yo' owes me, Cuthbert, yo' suffers a relapse ob memory!"

## Bad memory...

ONE of the easiest things which people do is to forget . . . and this is particularly true if you have not been selling them lately due to war restrictions . . . by the time the war is over you and your products may not even be a memory to them . . . but you can bridge these memory lapses by constantly reminding them now of your firm and products . . . through regular advertising in representative trade publications . . . for example, if you want to bridge any lapses of memory in the field of lithography we suggest regular advertising in

**MODERN LITHOGRAPHY**

254 WEST 31st STREET

NEW YORK 1

*Member, Audit Bureau of Circulations*

## Tale Ends

**L**ITHOGRAPHY — photo-lithography—offset—offset-lithography—offset-printing—photo-offset? "A rose any other name . . ." The old subject of confusion of terms in our industry came up again the other night at a trade meeting, and this particular group decided to tackle the problem and try to come up with something constructive. With the exception of government agencies, our industry has probably succeeded in confusing more people than anyone else. If you think the common man in the street knows what lithography-photo-lithography . . . etc., is, just try to explain it to a draft board some time.

One of the things we can do in our bright new postwar world is select a name for our work.

★

The other day, for no good reason, we picked up a copy of the "Macaroni Journal." In those sparkling columns we read with a good deal of zest the latest news on macaroni and its affiliate, spaghetti. Catching our eye was a heading "Rossottis Entertain." It was the story of an annual dinner put on by the Rossotti Lithographing Co., North Bergen, N. J. for the noodle and macaroni trades. The brothers Rossotti, Al, who is a past president of the New York Litho Club, and Charles, supervised the entertainment of the affair which was held at the New York Rifle Club. A similar dinner was tossed in Chicago with Charles in charge. Mr. Giovannato Giannini, prominent noodler, and long a leader in noodle circles, said of the dinner, "She is as fine as mine own spaghet."

★

### Going Into the Service?

Subscribers to *Modern Lithography* who enter the armed services may send us their military address and we will send their copies of the magazine to them direct. Many men in the services are now reading this magazine to keep up with the industry until after the war. There is a special rate of \$1.50 per year for military subscriptions. If you expect to re-employ your men who are now serving, why not invest \$1.50 each and let them keep up with the trade?

**MODERN LITHOGRAPHY**

Prominent Users of Strathmore Letterhead Papers: No. 47 of a Series



## does your letterhead HIT THE HIGH SPOTS?

Now powerful Hydromatics made by Hamilton Standard Propellers are used on more than 76% of all American battle planes . . . from giant bombers like the Flying Fortress to speedy fighters such as the Corsair and the Hellcat. With the invention of the constant-speed propeller, Hamilton Standard Propellers gave aviation the "gear shift of the air."

Like many top flight companies, Hamilton Standard uses Strathmore paper for its letterhead. YOUR letterhead must open doors in high places. Now that lighter weight papers are a wartime necessity, quality becomes more important than ever. The Strathmore watermark is your assurance of that quality.

*Strathmore Papers for Letterheads: Strathmore Parchment, Strathmore Script, Strathmore Bond, Thistlemark Bond, Alexandra Bond, Bay Path Bond and Alexandra Brilliant.*

# STRATHMORE

MAKERS  
OF FINE  
PAPERS

Strathmore Paper Company, West Springfield, Massachusetts

## PAPER IS PART OF TODAY'S PICTURE

Current Strathmore advertising points out how essential paper is to the war effort, features leading industries that use Strathmore in their Victory programs, stresses the point that good letterheads help maintain the reputation every firm is guarding today.

★ ★ ★

This series appears in:

FORTUNE  
TIME  
BUSINESS WEEK  
UNITED STATES NEWS  
NEWSWEEK  
FORBES  
ADVERTISING &  
SELLING  
TIDE  
PRINTERS' INK  
SALES MANAGEMENT

# the **M**agic Lure of the Print Shop



**S**ometimes it is the nature of a craft to create an unbreakable tie between itself and the worker in that field, a heart attachment equal to lifetime devotion. One familiar example is **PRINTING**. Once editor, compositor, or pressman catches the spirit of the shop, the spell is seldom broken. Like the odor of a camp fire, or a whiff of salt air, the beloved tang of printer's ink, symbolical of a great profession, gets into your heart and soul. Law books, text books, encyclopedias, magazines, and newspapers, all smack of it. It is an invisible link that binds all intelligence together. It is the stimulus for creation in business or romance. This craftsmanship, this devotion to service and alertness to business needs, has nourished and developed an enormous industrial vitality, and whichever way the course of the future runs, the printer will always find himself able to adapt his helpfulness to new opportunity.

**NOW AVAILABLE.** Complete and comprehensive Guide Book of Essential Wartime Printing and Lithography. 64 pages (8½" x 11") of detailed description and information on every government



public relations problem which can be aided by printed promotion. We shall be glad to obtain a copy for you . . . or write direct to Graphic Arts Victory Committee, 17 East 42nd St., New York City.

## **HARRIS • SEYBOLD • POTTER • COMPANY**

### **HARRIS DIVISION**

**CLEVELAND 5, OHIO**  
MANUFACTURERS OF OFFSET LITHOGRAPHIC • LETTERPRESS  
AND GRAVURE PRINTING MACHINERY • • • • •

### **SEYBOLD DIVISION**

**DAYTON 7, OHIO**  
MANUFACTURERS OF PAPER CUTTERS AND TRIMMERS • KNIFE  
GRINDERS • DIE PRESSES • WRIGHT DRILLS • MORRISON STITCHERS